

Telephone Areas Serviced by Bell and Independent Companies in the United States

B.A. Hart

A.M. Nave

A.W. Raskob, Jr.

J.C. Thomason



U.S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary

Bernard J. Wunder, Jr., Assistant Secretary
for Communications and Information

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TELEPHONE AREAS SERVICED BY BELL AND INDEPENDENT COMPANIES IN THE UNITED STATES

Burgette A. Hart, Ann M. Nave,
Anthony W. Raskob, Jr., and John C. Thomason*

The geographic coverage of all telephone companies in the United States is presented in a series of maps depicting the operating areas served by Bell and each of the various independent telephone companies. Tables are also presented of state-by-state listings of (1) almost 1500 telephone companies and their headquarters, and (2) the land areas of each state's major telephone companies. In the future, this updated version of telephone company areas should be more useful than the original 1973 report, since it was plotted with an interactive computer system, which has the capability of updating boundary changes with minimal effort.

Key words: telephone company areas; independent telephone companies; telephone company maps; interactive computer graphic system

1. INTRODUCTION

The geographic coverage of all telephone companies in the United States was previously presented in a series of state maps (Hart, 1973). An unusually large number of these reports have been and are still being sold by the National Technical Information Service and the Government Printing Office. In the past few years, however, many firms and individuals have indicated that they would be interested in purchasing an update of this publication. In response to these requests, the telephone company area maps have been revised, and a new listing (as of January 1, 1981) of independent telephone companies operating in each of the

* The authors are with the Office of Policy Analysis and Development, National Telecommunications and Information Administration, U.S. Department of Commerce, Boulder, CO 80303.

fifty states has been prepared. In addition, because the telephone company boundaries were digitized with an interactive computer graphic system, area computations of the eight largest companies in each state were made and are listed in this report.

2. DISCUSSION OF DATA

2.1 Statistical

There were 180,424,023 telephones in the United States at the beginning of 1981. The principal subsidiaries of the American Telephone and Telegraph Company* (more commonly called the Bell System) service 81 percent of these phones. (See Table 1.) The remainder is serviced by 1,483 non-Bell companies, which are usually called the "independents." These independent companies service 44 percent of the area of the United States, while Bell services 31 percent. A list of the top fifteen independents (with their number of telephones) is given in Table 2. The large area of the United States that is labeled as "undesignated" in Table 1 represents unfranchised or unassigned territory. It includes natural features such as lakes, deserts, swamps, and mountainous terrain. It may also include special bounded areas, such as military reservations or very sparsely populated areas of national parks and forests.

* The January 8, 1982, settlement of the antitrust suit brought by the United States against the American Telephone and Telegraph Company (AT&T) requires AT&T to divest itself of ownership of 21 operating companies (excluding Cincinnati Bell and Southern New England Telephone) 18 months after the settlement is approved. That approval is pending in the U.S. District Court for the District of Columbia.

TABLE 1
Summary of U.S. Telephone Coverage

TELEPHONE COMPANY	AREA		TELEPHONES		DENSITY	
	TOTAL SQ. MILES	% OF TOTAL	TOTAL NUMBER	% OF TOTAL	(PHONES/SQ. MI.)	
BELL	1,134,619	31.36	145,876,350*	80.85	128.57	
GENERAL TEL. & ELECTRONICS	250,774	6.93	15,756,400	8.73	62.83	
UNITED	116,674	3.22	4,697,468	2.60	40.26	
CONTINENTAL	237,681	6.57	3,125,800	1.73	13.15	
CENTRAL	30,549	0.84	1,806,600	1.00	59.14	
MID-CONTINENTAL	25,966	0.72	1,094,850	0.61	42.16	
OTHER INDEPENDENTS	940,383	25.99	8,066,555	4.47	8.58	
UNDESIGNATED AREAS (inc. water)	881,759	24.37	0	.00	.00	
TOTAL	3,618,405	100.00	180,424,023	100.00	49.86	

TABLE 2
Top 15 Independent Telephone Companies or Groups**
December 31, 1980

	NAME	HEADQUARTERS	TELEPHONES
1.	General Tel. & Elec. Corp.	Stamford, CT	15,756,400
2.	United Telephone System, Inc.	Kansas City, MO	4,697,500
3.	Continental Telephone Corp.	Atlanta, GA	3,125,800
4.	Central Tel. & Utilities Corp.	Chicago, IL	1,806,600
5.	Mid-Continent Tel. Corp.	Hudson, OH	1,094,900
6.	Puerto Rico Tel. Co.	San Juan, PR	631,500
7.	Rochester Tel. Corp.	Rochester, NY	621,900
8.	Lincoln Tel. & Tel. Co.	Lincoln, NE	330,600
9.	Century Tel. Enterprises, Inc.	Monroe, LA	265,600
10.	Tel. & Data Systems, Inc.	Chicago, IL	236,500
11.	Commonwealth Tel. Co.	Dallas, PA	235,800
12.	Telephone Utilities, Inc.	Portland, OR	205,000
13.	Allied Telephone Co.	Little Rock, AR	201,600
14.	Anchorage Telephone Utilities	Anchorage, AK	142,200
15.	Illinois Consolidated Tel. Co.	Mattoon, IL	126,400

* From Telephony's Directory (1981), p. 632.

** From USITA (1981b), p. 13.

Among the independents, General Telephone and Electronics serves the largest area (6.9 percent of the United States) followed closely by Continental (6.6 percent). Other independents (than the top five) service 26 percent of the United States area, but only 4.5 percent of the telephones. These area data from Table I are a summary of the detailed data given in Table 3. This latter table gives the state areas served by Bell, any of the top five independent holding companies (shown in Table I) that serve the state, and the two "additional" independents (designated as #1 and #2) that have the larger number of telephones within that particular state. The percentages do not always equal 100 percent because of rounding errors. Rounding errors also explain why the total square miles in each state do not always agree with totals given in the Statistical Abstract (1980).

Appendix A lists all the telephone companies in each state that are not a part of Bell or the top five independent holding companies. Those companies that are affiliates or associates of a larger independent are (indented and) listed under the "parent" company. Each company has at least one telephone service area in the state under which it is listed. Two states, Iowa and Wisconsin, contain more than 100 independent telephone companies. This Appendix also gives the number of telephones (as of the beginning of 1981) for the additional (#1 and #2) top independents within each state. These two companies are marked with asterisks. We used information from four sources: Telephony's Directory (1981), Telephone Engineer and Management Directory (1981), Rural Electrification Administration (1981), and USITA (1981a), for these data. If small discrepancies appeared, the latter reference was used, but, in the case of large discrepancies, individual telephone companies were contacted for their number of telephones. It can be noted that companies 7-9 and 11-15 in Table 2 are also the #1 companies in those states where each is headquartered.

TABLE 3
Telephone Company Land Areas by State

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
ALABAMA			
	BELL	27,067	52.4
	GTE	5,775	11.2
	CONTINENTAL	7,193	13.9
	MID-CONTINENT	708	1.4
#1	GULF TEL. CO.	643	1.2
#2	FARMERS TEL. COOP., INC.	669	1.3
	OTHER	<u>9,555</u>	<u>18.5</u>
	<u>TOTAL</u>	<u>51,610</u>	
ALASKA			
	GTE	15,547	2.6
	CONTINENTAL	12,145	2.1
#1	ANCHORAGE TEL. UTIL.	1,212	0.2
#2	FAIRBANKS MUNICIPAL UTIL. SYSTEMS	3,727	0.6
	OTHER	97,088	16.5
	<u>UNDESIGNATED</u>	<u>460,037</u>	<u>78.0</u>
	<u>TOTAL</u>	<u>589,756</u>	
ARIZONA			
	BELL	27,105	23.8
	CONTINENTAL	9,746	8.6
#1	CITIZEN'S UTIL. CO.	8,313	7.3
#2	GREAT SOUTHWEST TEL. CORP.	13,280	11.7
	OTHER	15,790	13.9
	<u>UNDESIGNATED</u>	<u>39,674</u>	<u>34.8</u>
	<u>TOTAL</u>	<u>113,908</u>	
ARKANSAS			
	BELL	18,620	35.1
	GTE	6,086	11.5
	UNITED	801	1.5
	CONTINENTAL	5,541	10.4
#1	ALLIED TEL. CO., INC.	7,846	14.8
#2	CENTURY TEL. ENTERPRISES	2,226	4.2
	OTHER	9,603	18.1
	<u>UNDESIGNATED</u>	<u>2,262</u>	<u>4.3</u>
	<u>LARGE WATER AREAS</u>	<u>119</u>	<u>0.2</u>
	<u>TOTAL</u>	<u>53,104</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
CALIFORNIA			
	BELL	51,142	32.2
	GTE	10,916	6.9
	UNITED	237	0.1
	CONTINENTAL	19,049	12.0
#1	ROSEVILLE TEL. CO	78	0.0
#2	CITIZENS UTIL. CO.	3,780	2.4
	OTHER	8,154	5.1
	UNDESIGNATED	64,754	40.8
	<u>LARGE WATER AREAS</u>	<u>584</u>	<u>0.4</u>
	<u>TOTAL</u>	<u>158,694</u>	
COLORADO			
	BELL	75,486	72.4
	CONTINENTAL	1,533	1.5
#1	DELTA COUNTY TEL. CO.	1,489	1.4
#2	EASTERN SLOPE RURAL TEL. ASSN.	5,326	5.1
	OTHER	17,637	16.9
	UNDESIGNATED	2,776	2.7
	<u>TOTAL</u>	<u>104,247</u>	
CONNECTICUT			
	BELL	4,938	98.6
#1	<u>WOODBURY TEL. CO.</u>	<u>71</u>	<u>1.4</u>
	<u>TOTAL</u>	<u>5,009</u>	
DELAWARE			
	BELL	2,057	100.0
	<u>TOTAL</u>	<u>2,057</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
FLORIDA			
	BELL	20,905	35.7
	GTE	5,164	8.8
	UNITED	16,139	27.6
	CONTINENTAL	1,687	2.9
	CENTRAL	4,448	7.6
	MIDCONTINENT	3,791	6.5
#1	ST. JOSEPH TEL. & TELEGRAPH CO.	2,790	4.8
#2	GULF TEL. CO.	1,033	1.8
	OTHER	1,422	2.4
	<u>LARGE WATER AREAS</u>	<u>1,181</u>	<u>2.0</u>
	<u>TOTAL</u>	<u>58,560</u>	
GEORGIA			
	BELL	27,248	46.3
	GTE	8,800	14.9
	UNITED	62	0.1
	CONTINENTAL	6,299	10.7
	MID-CONTINENT	1,837	3.1
#1	STANDARD TEL. CO.	1,599	2.7
#2	COASTAL UTIL., INC.	974	1.7
	OTHER	12,058	20.5
	<u>TOTAL</u>	<u>58,877</u>	
HAWAII			
	GTE	5,765	89.4
	<u>UNDESIGNATED</u>	<u>685</u>	<u>10.6</u>
	<u>TOTAL</u>	<u>6,450</u>	
IDAHO			
	BELL	20,676	24.7
	GTE	6,824	8.2
	CONTINENTAL	5,329	6.4
#1	PROJECT MUTUAL TEL. COOP. ASSN.	1,003	1.2
#2	CENTURY TEL. ENTERPRISES, INC.	1,976	2.4
	OTHER	16,674	20.0
	UNDESIGNATED	30,860	36.9
	<u>LARGE WATER AREAS</u>	<u>215</u>	<u>0.3</u>
	<u>TOTAL</u>	<u>83,557</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
ILLINOIS			
	BELL	12,009	21.3
	GTE	20,203	35.8
	CONTINENTAL	9,216	16.3
	CENTRAL	1,400	2.5
	MID-CONTINENT	2,228	4.0
#1	ILLINOIS CONSOLIDATED TEL. CO.	2,882	5.1
#2	HARRISONVILLE TEL. CO.	480	0.9
	OTHER	<u>7,981</u>	<u>14.2</u>
	TOTAL	56,399	
INDIANA			
	BELL	10,377	28.6
	GTE	7,473	20.6
	UNITED	6,102	16.8
	CONTINENTAL	5,324	14.7
	MID-CONTINENT	397	1.1
#1	SMITHVILLE TEL. CO. INC.	1,073	3.0
#2	PRINCETON TEL. CO.	467	1.3
	OTHER	<u>5,077</u>	<u>14.0</u>
	TOTAL	36,290	
IOWA			
	BELL	12,773	22.7
	GTE	9,252	16.4
	UNITED	3,364	6.0
	CONTINENTAL	8,171	14.5
	CENTRAL	2,853	5.1
#1	CLEAR LAKE INDEPENDENT TEL. CO.	151	0.3
#2	GRAND RIVER MUTUAL TEL. CORP.	1,209	2.1
	OTHER	<u>18,517</u>	<u>32.9</u>
	TOTAL	56,290	

TABLE 3
Telephone Company Land Areas by State (Continued)

STATE	COMPANY	LAND AREA (SQ. MI)	% OF STATE AREA
KANSAS			
	BELL	29,200	35.5
	GTE	141	0.2
	UNITED	7,988	9.7
	CONTINENTAL	9,506	11.6
#1	PIONEER TEL. ASSN., INC.	4,610	5.6
#2	CRAW-KAN. TEL. COOP. ASSN., INC.	1,904	2.3
	OTHER	28,423	34.6
	<u>UNDESIGNATED</u>	492	0.6
	<u>TOTAL</u>	<u>82,264</u>	
KENTUCKY			
	BELL	19,227	47.6
	GTE	6,920	17.1
	CONTINENTAL	4,298	10.6
#1	SO. CENTRAL RURAL TEL. COOP.	1,521	3.8
#2	BRANDENBURG TEL. CO., INC.	518	1.3
	OTHER	7,576	18.8
	<u>LARGE WATER AREAS</u>	<u>335</u>	<u>0.8</u>
	<u>TOTAL</u>	<u>40,395</u>	
LOUISIANA			
	BELL	33,735	69.5
#1	CENTURY TEL. ENTERPRISES, INC.	6,668	13.7
#2	EAST ASCENSION TEL. CO.	479	1.0
	OTHER	6,884	14.2
	<u>LARGE WATER AREAS</u>	<u>757</u>	<u>1.6</u>
	<u>TOTAL</u>	<u>48,523</u>	
MAINE			
	BELL	12,908	38.9
	CONTINENTAL	3,868	11.6
#1	TEL. AND DATA SYSTEMS, INC.	2,060	6.2
#2	COMMUNITY SERVICE TEL. CO.	285	0.9
	OTHER	1,751	5.3
	<u>UNDESIGNATED</u>	<u>12,343</u>	<u>37.2</u>
	<u>TOTAL</u>	<u>33,215</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
MARYLAND			
	BELL	10,418	98.5
	GTE	14	0.1
#1	<u>ARMSTRONG TEL. CO.</u>	<u>145</u>	<u>1.4</u>
	<u>TOTAL</u>	<u>10,577</u>	
MASSACHUSETTS			
	BELL	8,140	98.6
#1	GRANBY TEL. & TELEGRAPH CO.	29	0.3
#2	RICHMOND TEL. CO.	18	0.2
	OTHER	31	0.4
	<u>LARGE WATER AREAS</u>	<u>40</u>	<u>0.5</u>
	<u>TOTAL</u>	<u>8,258</u>	
MICHIGAN			
	BELL	25,084	43.1
	GTE	17,450	30.0
	CONTINENTAL	2,908	5.0
	MID-CONTINENT	1,603	2.8
#1	CENTURY TEL. ENTERPRISES, INC.	886	1.5
#2	CC&S SYSTEMS, INC.	642	1.1
	OTHER	8,159	14.0
	<u>UNDESIGNATED</u>	<u>1,485</u>	<u>2.6</u>
	<u>TOTAL</u>	<u>58,217</u>	
MINNESOTA			
	BELL	23,882	28.4
	GTE	474	0.6
	UNITED	4,005	4.8
	CONTINENTAL	11,432	13.6
	CENTRAL	3,502	4.2
#1	MANKATO CITIZENS TEL. CO.	754	0.9
#2	GARDEN VALLEY TEL. CO.	3,441	4.1
	OTHER	29,884	35.5
	<u>UNDESIGNATED</u>	<u>5,366</u>	<u>6.4</u>
	<u>LARGE WATER AREAS</u>	<u>1,327</u>	<u>1.6</u>
	<u>TOTAL</u>	<u>84,067</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

STATE	COMPANY	LAND AREA (SQ. MI)	% OF STATE AREA
MISSISSIPPI			
	BELL	39,212	82.2
	MID-CONTINENT	529	1.1
#1	TELEPHONE ELECTRONICS CORP.	1,311	2.7
#2	CENTURY TEL. ENTERPRISES, INC.	516	1.1
	OTHER	6,148	12.9
	<u>TOTAL</u>	<u>47,716</u>	
MISSOURI			
	BELL	19,475	27.9
	GTE	4,215	6.0
	UNITED	7,876	11.3
	CONTINENTAL	14,469	20.8
	CENTRAL	3,303	4.7
#1	ALLIED TEL. CO.	4,019	5.8
#2	GRAND RIVER MUTUAL TEL. CORP.	784	1.1
	OTHER	14,916	21.4
	UNDESIGNATED	155	0.2
	<u>LARGE WATER AREAS</u>	<u>475</u>	<u>0.7</u>
	<u>TOTAL</u>	<u>69,687</u>	
MONTANA			
	BELL	34,384	23.4
	GTE	3,427	2.3
#1	TEL. UTILITIES, INC.	2,445	1.7
#2	TRIANGLE TEL. COOP. ASSN., INC.	13,924	9.5
	OTHER	57,455	39.0
	UNDESIGNATED	35,503	24.1
	<u>TOTAL</u>	<u>147,138</u>	
NEBRASKA			
	BELL	21,114	27.3
	GTE	4,422	5.7
	UNITED	3,707	4.8
	CONTINENTAL	3,172	4.1
#1	LINCOLN TEL. & TELEGRAPH CO.	10,167	13.2
#2	UNITEL OF NEBRASKA	6,302	8.2
	OTHER	24,744	32.0
	UNDESIGNATED	3,599	4.7
	<u>TOTAL</u>	<u>77,227</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
NEVADA			
	BELL	5,987	5.4
	CONTINENTAL	1,643	1.5
	CENTRAL	1,636	1.5
#1	CALIF-PACIFIC NATIONAL CORP.	5,095	4.6
#2	COUNTY OF CHURCHILL	5,168	4.7
	OTHER	5,094	4.6
	UNDESIGNATED	85,292	77.2
	LARGE WATER AREAS	625	0.6
	TOTAL	110,540	
NEW HAMPSHIRE			
	BELL	8,183	87.9
	CONTINENTAL	235	2.5
#1	TEL. & DATA SYSTEMS, INC.	169	1.8
#2	MERRIMACK COUNTY TEL. CO.	202	2.2
	OTHER	515	5.5
	TOTAL	9,304	
NEW JERSEY			
	BELL	6,675	85.2
	UNITED	956	12.2
	CONTINENTAL	155	2.0
#1	WARWICK VALLEY TEL. CO.	50	0.6
	TOTAL	7,836	
NEW MEXICO			
	BELL	61,404	50.5
	GTE	2,589	2.1
	CONTINENTAL	12,381	10.2
#1	GREAT SOUTHWEST TEL. CORP.	5,432	4.5
#2	E.N.M.R. TEL. COOP.	5,461	4.5
	OTHER	25,691	21.1
	UNDESIGNATED	8,709	7.2
	TOTAL	121,667	

TABLE 3
Telephone Company Land Areas by State (Continued)

STATE	COMPANY	LAND AREA (SQ. MI)	% OF STATE AREA
NEW YORK			
	BELL	28,126	56.7
	CONTINENTAL	11,190	22.6
	MID-CONTINENT	1,368	2.8
#1	ROCHESTER TEL. CORP.	2,454	5.0
#2	TOCONIC TEL. CORP.	638	1.3
	OTHER	5,752	11.6
	<u>LARGE WATER AREAS</u>	48	0.1
	TOTAL	49,576	
NORTH CAROLINA			
	BELL	12,789	24.3
	GTE	862	1.6
	UNITED	20,811	39.6
	CONTINENTAL	4,339	8.3
	CENTRAL	3,470	6.6
	MID-CONTINENT	2,101	4.0
#1	NORTH STATE TEL. CO.	350	0.7
#2	CONCORD TEL. CO.	741	1.4
	OTHER	7,123	13.5
	TOTAL	52,586	
NORTH DAKOTA			
	BELL	28,430	40.2
	CONTINENTAL	2,720	3.8
#1	NORTHERN STATES POWER CO.	198	0.3
#2	SOURIS RIVER TEL. MUTUAL AID CORP.	5,076	7.2
	OTHER	33,989	48.1
	<u>UNDESIGNATED</u>	252	0.4
	TOTAL	70,665	
OHIO			
	BELL	11,513	27.9
	GTE	15,174	36.8
	UNITED	8,762	21.3
	CENTRAL	175	0.4
	MID-CONTINENT	2,781	6.7
#1	CHILLICOTHE TEL. CO.	720	1.7
#2	CHAMPAIGN TEL. CO.	160	0.4
	OTHER	1,938	4.7
	TOTAL	41,223	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
OKLAHOMA			
	BELL	30,322	43.4
	GTE	6,814	9.7
	CONTINENTAL	165	0.2
#1	PIONEER TEL. COOP, INC.	7,378	10.6
#2	ALLIED TEL. CO.	5,061	7.2
	<u>OTHER</u>	<u>20,178</u>	<u>28.9</u>
	<u>TOTAL</u>	<u>69,918</u>	
OREGON			
	BELL	26,069	26.9
	GTE	4,097	4.2
	UNITED	5,237	5.4
	CONTINENTAL	1,822	1.9
#1	TEL. UTIL., INC.	9,218	9.5
#2	CALIF-PACIFIC NATIONAL CORP.	1,406	1.4
	OTHER	8,720	9.0
	UNDESIGNATED	40,228	41.5
	<u>LARGE WATER AREAS</u>	<u>184</u>	<u>0.2</u>
	<u>TOTAL</u>	<u>96,981</u>	
PENNSYLVANIA			
	BELL	18,230	40.2
	GTE	4,787	10.6
	UNITED	5,809	12.8
	CONTINENTAL	1,925	4.2
	MID-CONTINENT	5,543	12.2
#1	COMMONWEALTH TEL. CO.	4,926	10.9
#2	DENVER & EPHRATA TEL. & TELEGRAPH	183	0.4
	<u>OTHER</u>	<u>3,930</u>	<u>8.7</u>
	<u>TOTAL</u>	<u>45,333</u>	
RHODE ISLAND			
	BELL	1,206	99.4
	<u>LARGE WATER AREAS</u>	<u>8</u>	<u>0.6</u>
	<u>TOTAL</u>	<u>1,214</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
SOUTH CAROLINA			
	BELL	14,183	45.7
	GTE	2,292	7.4
	UNITED	2,517	8.1
	CONTINENTAL	328	1.1
	MID-CONTINENT	423	1.4
#1	ROCK HILL TEL. CO.	215	0.7
#2	FARMERS TEL. COOP., INC.	2,512	8.1
	OTHER	8,066	26.0
	UNDESIGNATED	28	0.1
	<u>LARGE WATER AREAS</u>	<u>492</u>	<u>1.6</u>
	<u>TOTAL</u>	<u>31,056</u>	
SOUTH DAKOTA			
	BELL	33,070	42.9
	CONTINENTAL	2,884	3.7
#1	CITY OF BROOKINGS MUNICIPAL TEL.	547	0.7
#2	GOLDEN WEST TEL. COOP., INC.	12,897	16.7
	OTHER	27,409	35.6
	<u>UNDESIGNATED</u>	<u>240</u>	<u>0.3</u>
	<u>TOTAL</u>	<u>77,047</u>	
TENNESSEE			
	BELL	25,131	59.5
	GTE	1,333	3.2
	UNITED	2,279	5.4
#1	TEL. & DATA SYSTEMS, INC.	2,255	5.3
#2	TWIN LAKES TEL. COOP.	1,890	4.5
	<u>OTHER</u>	<u>9,356</u>	<u>22.1</u>
	<u>TOTAL</u>	<u>42,244</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
TEXAS			
	BELL	78,930	29.5
	GTE	43,845	16.4
	UNITED	8,656	3.2
	CONTINENTAL	27,561	10.3
	CENTRAL	3,064	1.1
#1	LUFKIN-CONROE COMM. CO.	1,359	0.5
#2	SUGAR LAND TEL. CO.	146	0.1
	OTHER	80,913	30.3
	UNDESIGNATED	22,791	8.5
	<u>LARGE WATER AREAS</u>	<u>74</u>	<u>0.0</u>
	<u>TOTAL</u>	<u>267,339</u>	
UTAH			
	BELL	32,464	38.2
	CONTINENTAL	11,977	14.1
#1	EMERY CO. FARMERS UNION TEL.	2,700	3.2
#2	UNITAH BASIN TEL. ASSN., INC.	4,905	5.8
	OTHER	16,140	19.0
	UNDESIGNATED	14,598	17.2
	<u>LARGE WATER AREAS</u>	<u>2,132</u>	<u>2.5</u>
	<u>TOTAL</u>	<u>84,916</u>	
VERMONT			
	BELL	7,232	75.3
	CONTINENTAL	1,653	17.2
#1	TEL. & DATA SYSTEMS, INC.	204	2.1
#2	WAITSFIELD-FAYSTON TEL. CO.	115	1.2
	OTHER	405	4.2
	<u>TOTAL</u>	<u>9,609</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
VIRGINIA			
	BELL	15,348	37.6
	GTE	979	2.4
	UNITED	3,197	7.8
	CONTINENTAL	9,712	23.8
	CENTRAL	6,698	16.4
#1	CLIFTON FORGE-WAYNESBORO TEL.	661	1.6
#2	SHENANDOAH TEL. CO.	592	1.5
	OTHER	3,401	8.3
	<u>UNDESIGNATED</u>	230	0.6
	<u>TOTAL</u>	<u>40,818</u>	
WASHINGTON			
	BELL	20,444	30.0
	GTE	7,788	11.4
	UNITED	6,279	9.2
	CONTINENTAL	3,631	5.3
#1	TEL. UTIL., INC.	5,693	8.3
#2	ELLENSBURG TEL. CO.	1,382	2.0
	OTHER	3,501	5.1
	<u>UNDESIGNATED</u>	<u>19,473</u>	<u>28.6</u>
	<u>TOTAL</u>	<u>68,191</u>	
WEST VIRGINIA			
	BELL	15,143	62.6
	GTE	2,247	9.3
	CONTINENTAL	2,476	10.2
	MID-CONTINENT	2,657	11.0
#1	ARMSTRONG UTIL., INC.	543	2.2
#2	CENTURY TEL. ENTERPRISES, INC.	54	0.2
	OTHER	670	2.8
	<u>UNDESIGNATED</u>	<u>390</u>	<u>1.6</u>
	<u>TOTAL</u>	<u>24,180</u>	

TABLE 3
Telephone Company Land Areas by State (Continued)

<u>STATE</u>	<u>COMPANY</u>	<u>LAND AREA (SQ. MI)</u>	<u>% OF STATE AREA</u>
WISCONSIN			
	BELL	8,449	15.0
	GTE	19,100	34.0
#1	NORTH-WEST TEL. CO.	2,060	3.7
#2	TEL. & DATA SYSTEMS, INC.	3,388	6.0
	OTHER	21,683	38.6
	UNDESIGNATED	1,284	2.3
	<u>LARGE WATER AREAS</u>	<u>191</u>	<u>0.3</u>
	<u>TOTAL</u>	<u>56,155</u>	
WYOMING			
	BELL	58,013	59.2
	UNITED	1,868	1.9
#1	WYOMING TEL. CO., INC.	3,820	3.9
#2	UNION TEL. CO.	1,874	1.9
	OTHER	12,754	13.0
	<u>UNDESIGNATED</u>	<u>19,586</u>	<u>20.0</u>
	<u>TOTAL</u>	<u>97,915</u>	

NOTE: Washington, D.C. is not included in either Maryland or Virginia. This district covers 67 sq. mi. and is serviced by a private telephone company, Potomac Telecommunications, Ltd.

2.2 Maps

The maps in the first telephone map report (Hart, 1973) were hand-drafted figures. However, telephone area boundaries change from year to year due to company mergers, purchases, and new exchange acquisitions or trades; therefore, it seemed desirable to seek some method that would permit easy alteration of telephone map boundaries. If this method also included a way to calculate telephone company areas, that would be a bonus. Computer graphics met both of these needs; therefore, it was used. (See Appendix B for a discussion of how a computer graphic system was used to create the telephone area maps.)

Maps were prepared of the telephone company operating areas for each of the 50 states (Figures 1-50). Two states with a very large number of area polygons were placed on more than one page in order to retain detail. Texas, with 511 polygons, is shown as Figures 43a, 43b, and 43c, while California, with 196 polygons, became Figures 5a and 5b. The shaded inset on each of these figures shows which state portion is depicted.

The key to the shading found on the maps is given on the code sheet preceding the state maps. Each of the state maps was divided into eleven arbitrary telephone areas: (1) Bell System companies, (2-6) the five independent companies with the largest number of telephones in the United States, (7-8) the two independent companies (exclusive of the five listed in 2-6) with the largest number of telephones within that state, (9) all other independent telephone companies in that state, (10) undesignated, and (11) large water areas. The last category is somewhat misleading, because it only includes those large water areas that were indicated on the telephone maps sent to us by the state commissions. Other water areas are either disguised as undesignated or included within the boundaries of a telephone company.

Almost half of the source maps of telephone service areas were based on updated versions of telephone boundary areas obtained from the state public service and utility commissions, the state independent telephone associations, or various Bell headquarters. Fifteen states were updated from telephone maps that were four to eight years old. Fourteen states were "hand-drawn," using the latest information obtained from the larger telephone holding companies and data contained in USITA (1981b), Telephone Engineer and Management Directory (1981), and Telephony's Directory (1981). Every attempt was made to insure that the company operating areas within each state were updated accurately through the early months of 1981. Some errors are inevitable because boundaries can fluctuate from month to month; however, this revised report contains a great many corrections updating the original 1973 report. It should be very useful to any group or individual who has a need for telephone company area data.

3. ACKNOWLEDGMENTS

The authors wish to express appreciation to Dale Hatfield who, first of all, suggested that this update should be written, and, second, gave encouragement whenever needed. They also wish to credit Roger Salaman and Jeffrey Close with assisting with the solving of computer hardware and software problems.

4. REFERENCES

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Statistical Abstract of the United States (1980), 101st Edition, Bureau of the Census, U.S. Department of Commerce, Washington, D.C., p. 209.

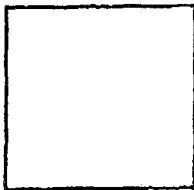
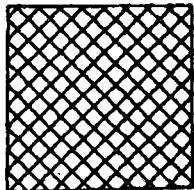
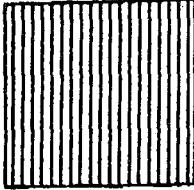
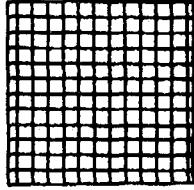
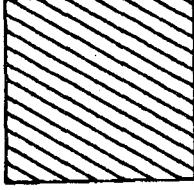
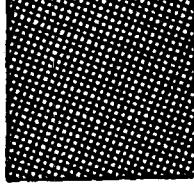
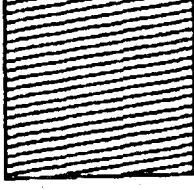
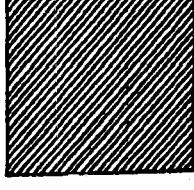
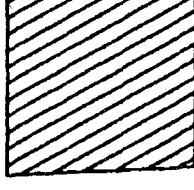
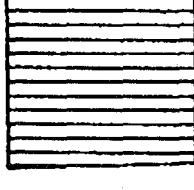
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USITA (1981b), Holding Company Report, United States Independent Telephone Association, Washington, D.C. 20006.

CODING KEY FOR TELEPHONE COMPANY STATE MAPS

	Bell System		No. 1
	General Telephone		No. 2
	United		Other Independents
	Continental		Undesignated
	Central		Large Water Areas
	Mid-Continent		

ALABAMA

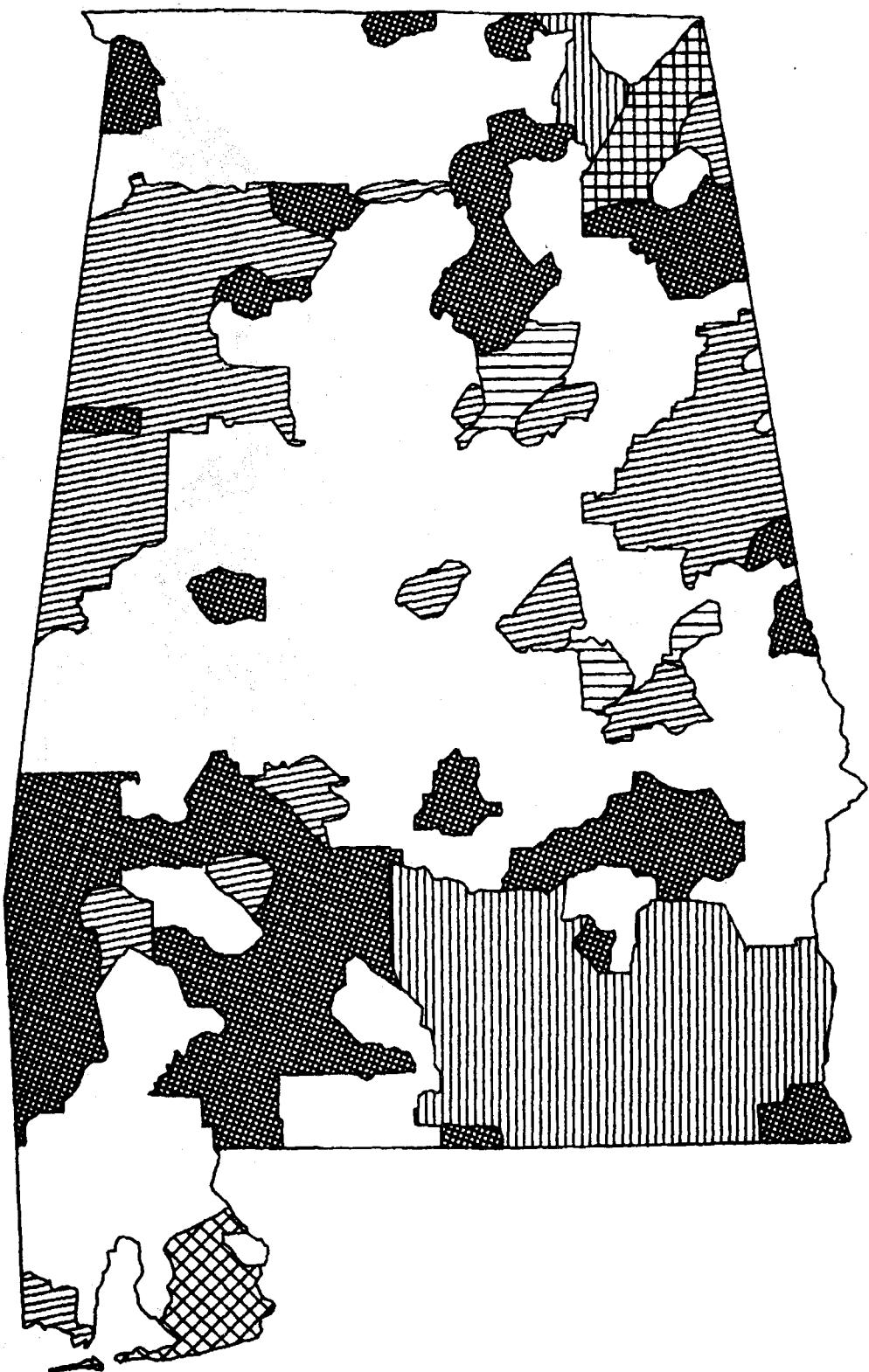


FIGURE 1

ALASKA

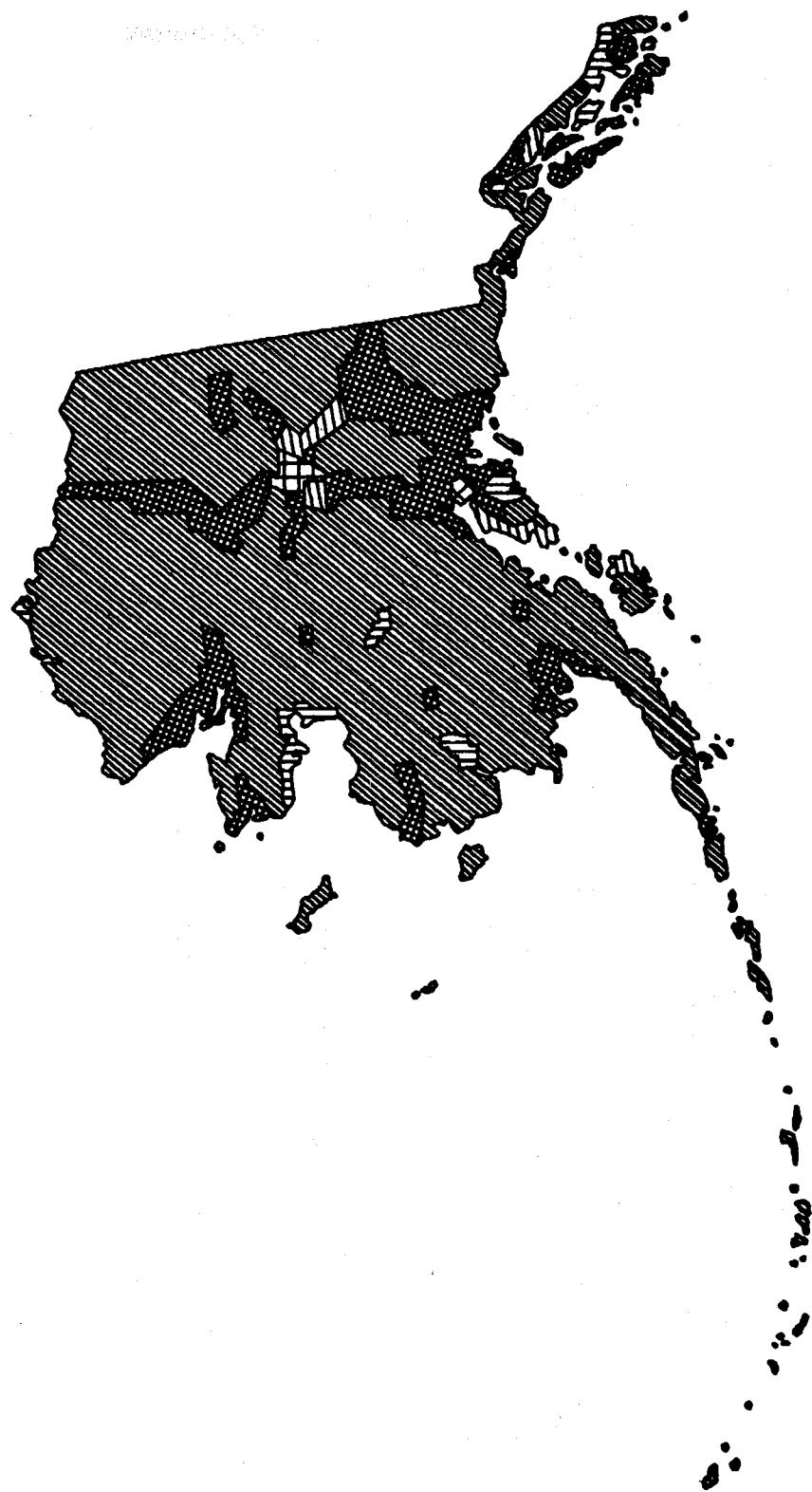


FIGURE 2

ARIZONA

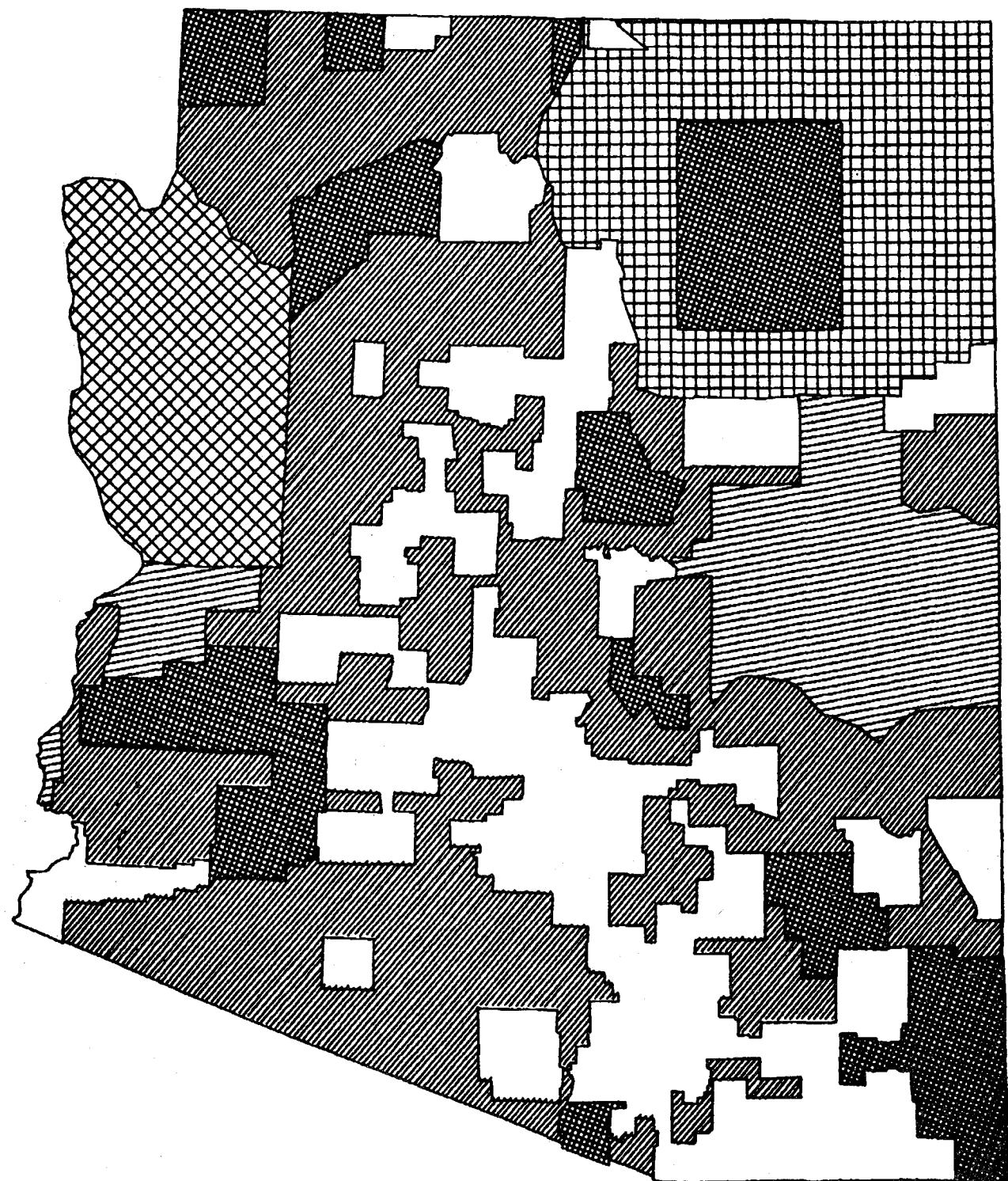


FIGURE 3

ARKANSAS

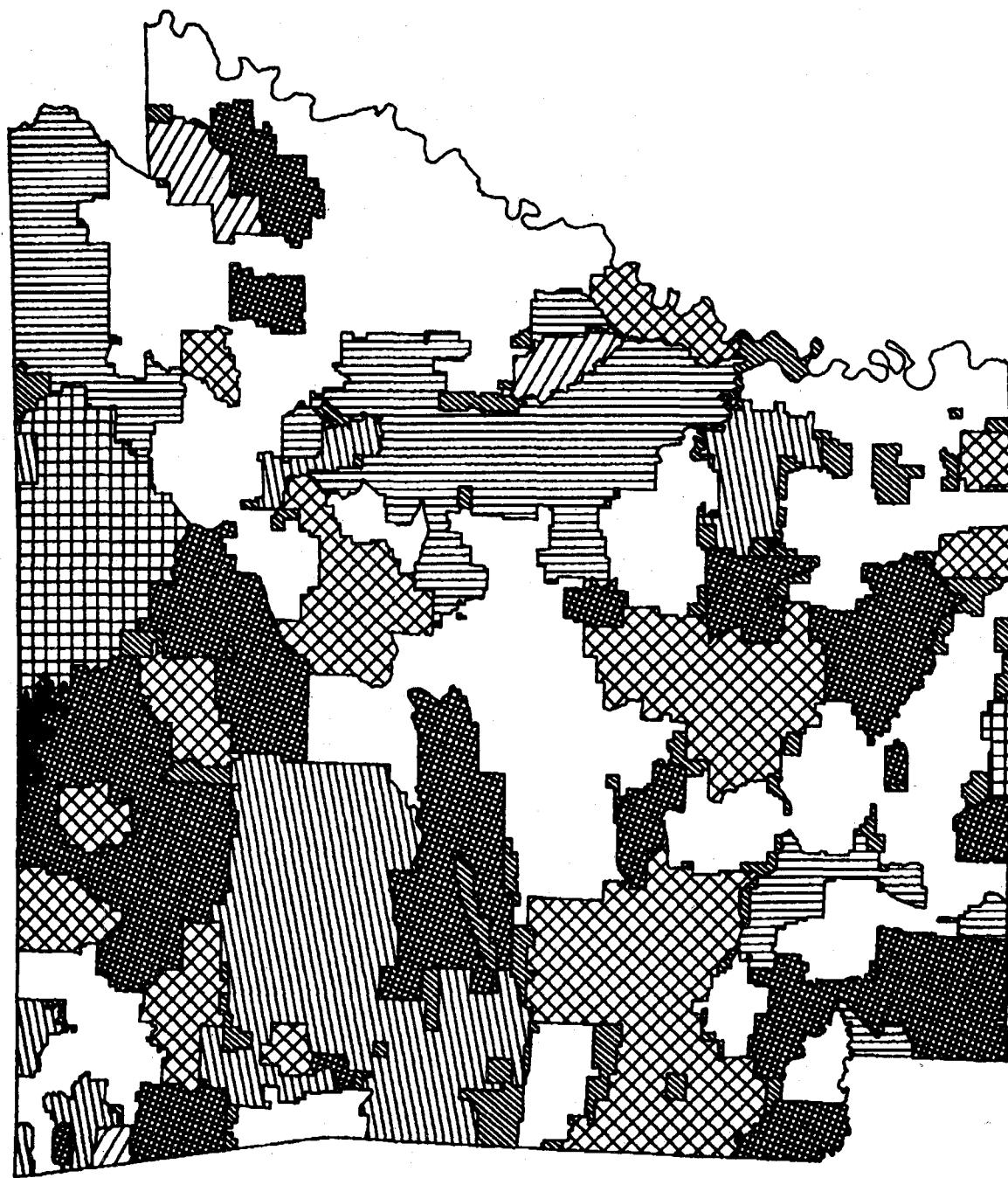


FIGURE 4

CALIFORNIA (UPPER)

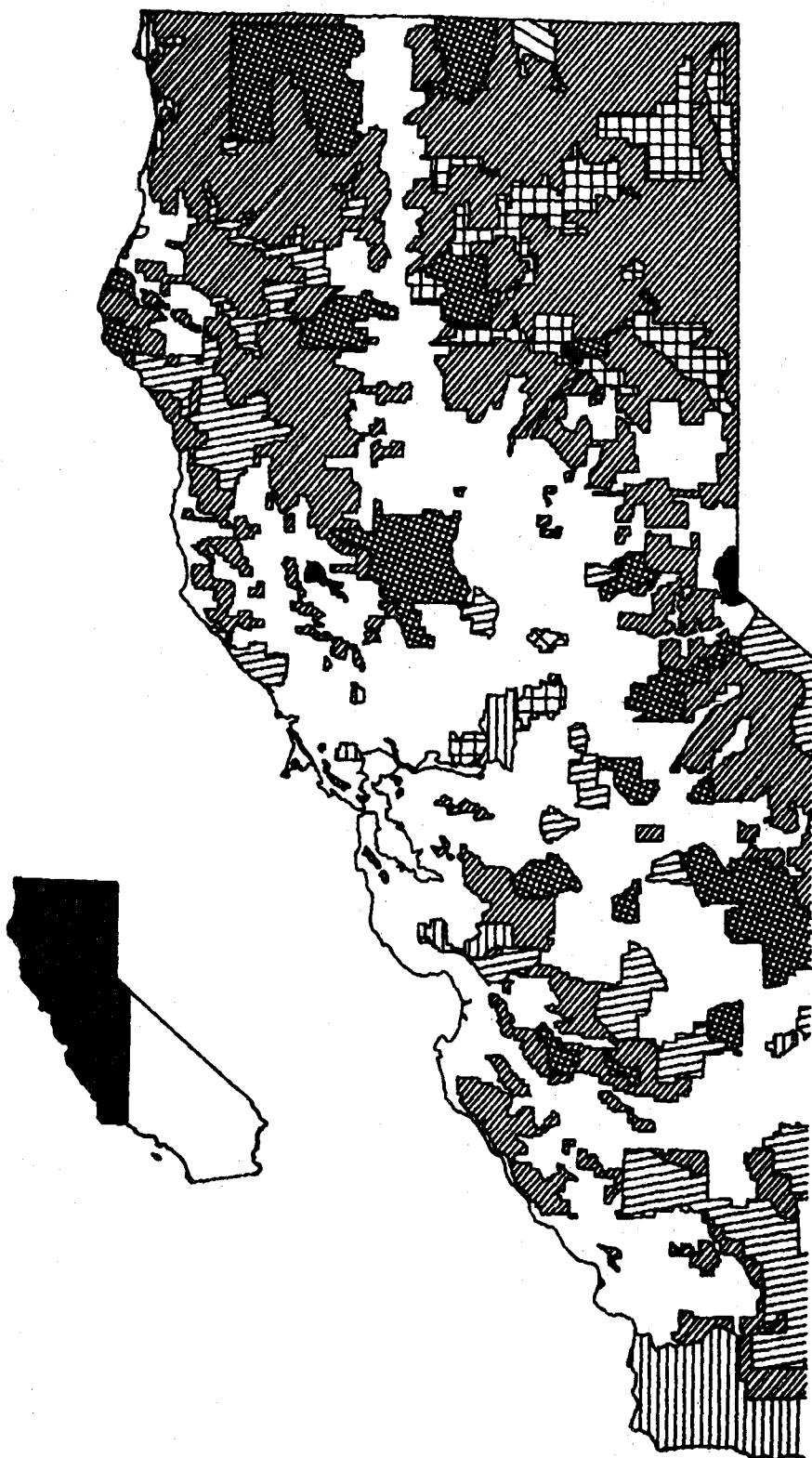


FIGURE 5a

CALIFORNIA (LOWER)

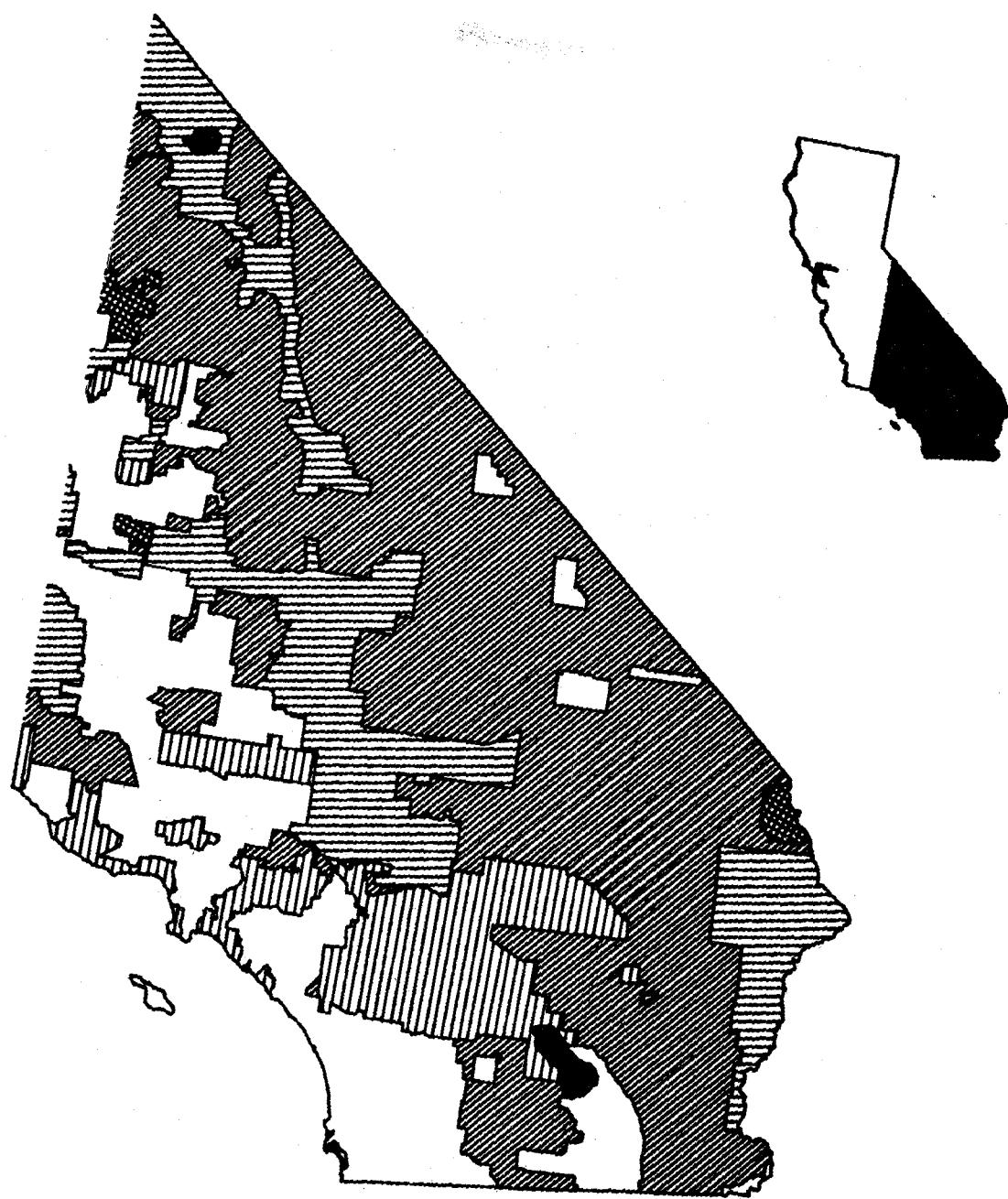


FIGURE 5b

COLORADO

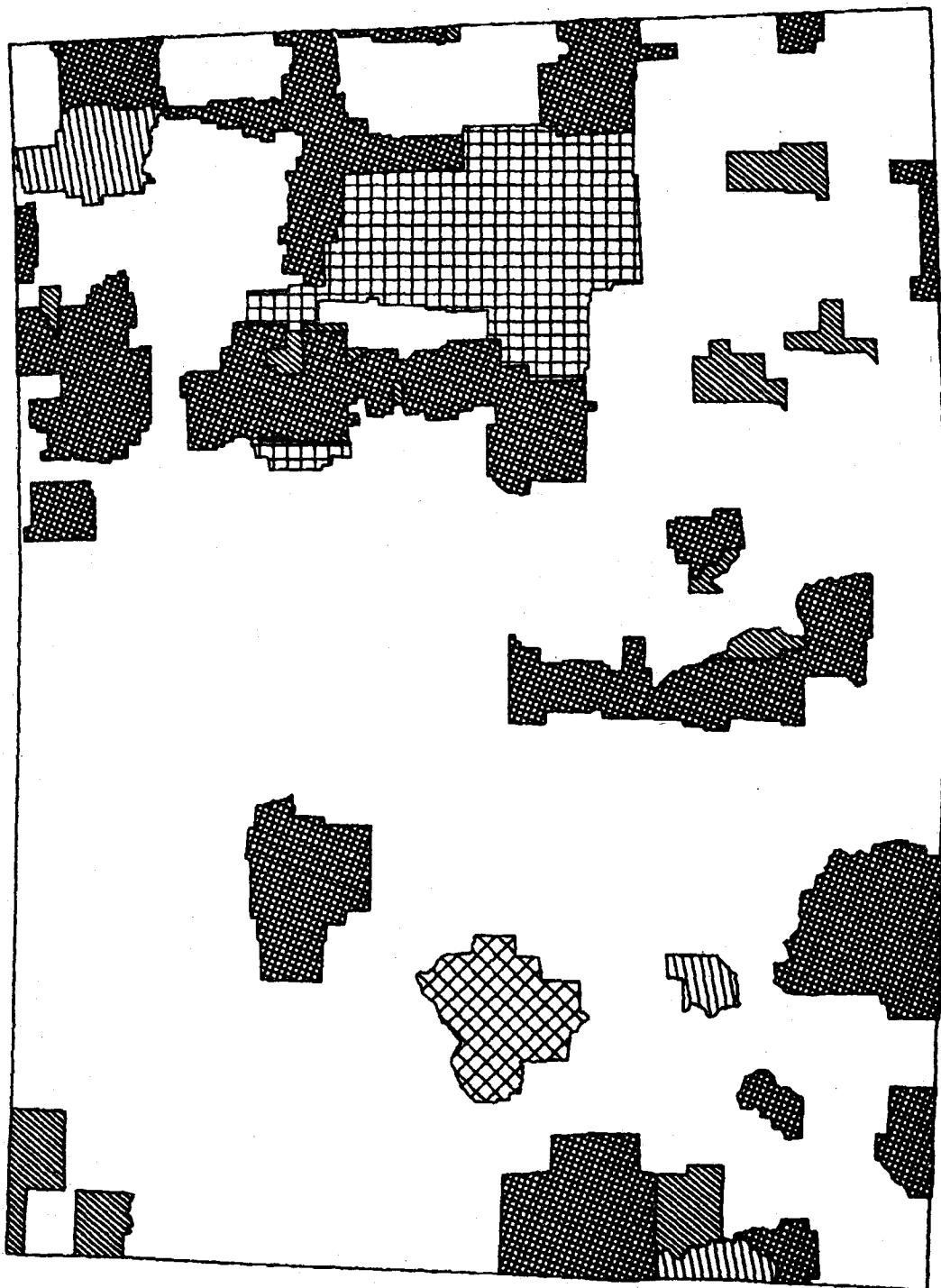


FIGURE 6

CONNECTICUT

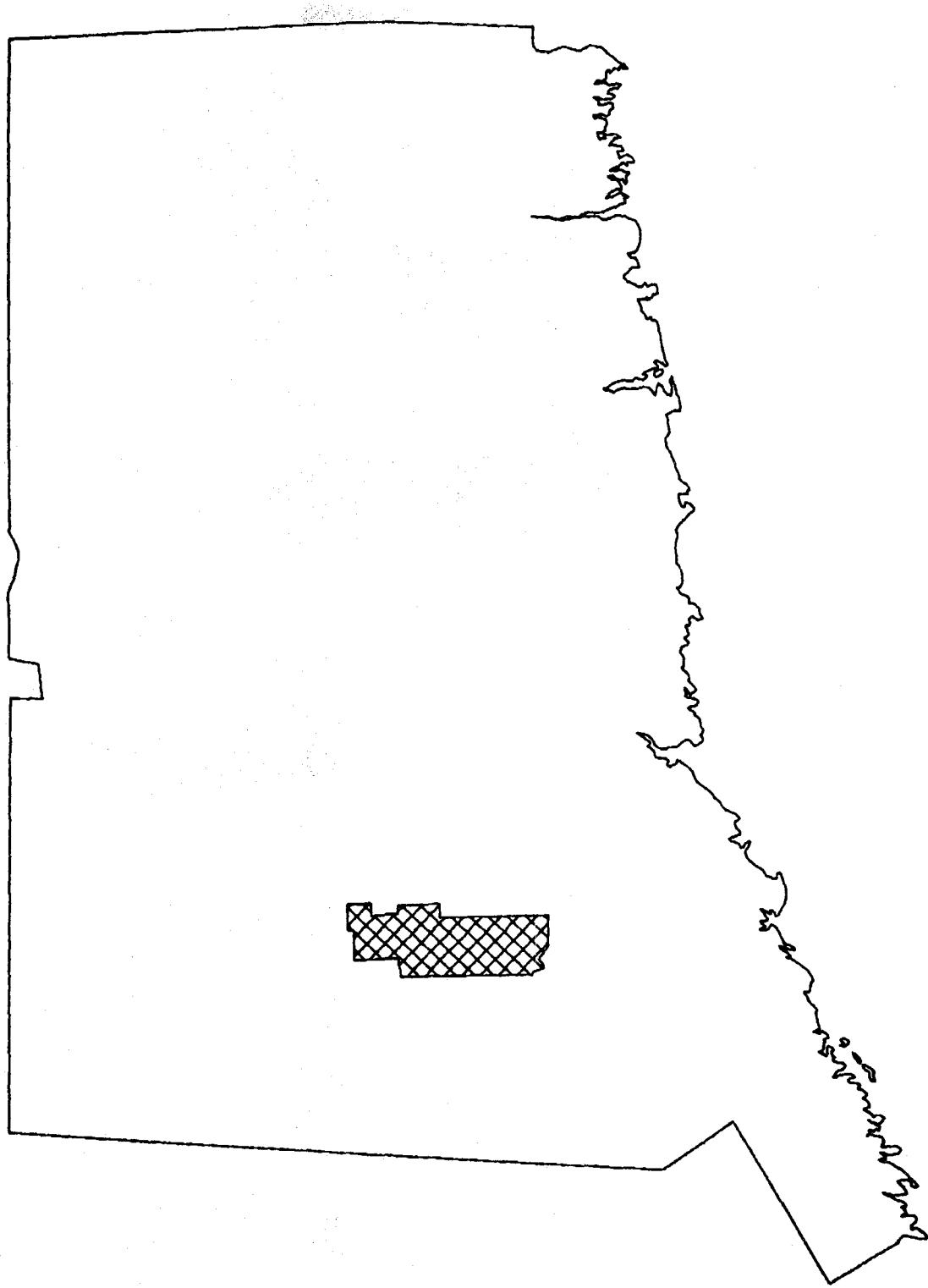


FIGURE 7

DELAWARE

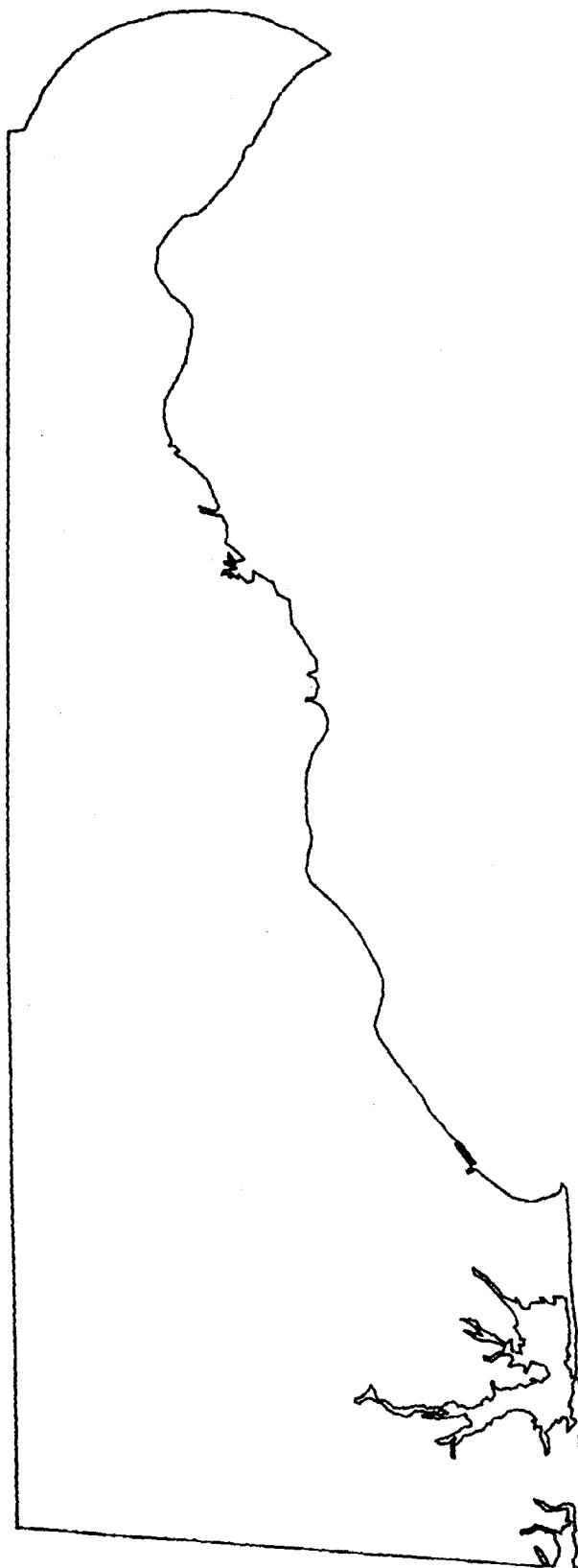


FIGURE 8

FLORIDA

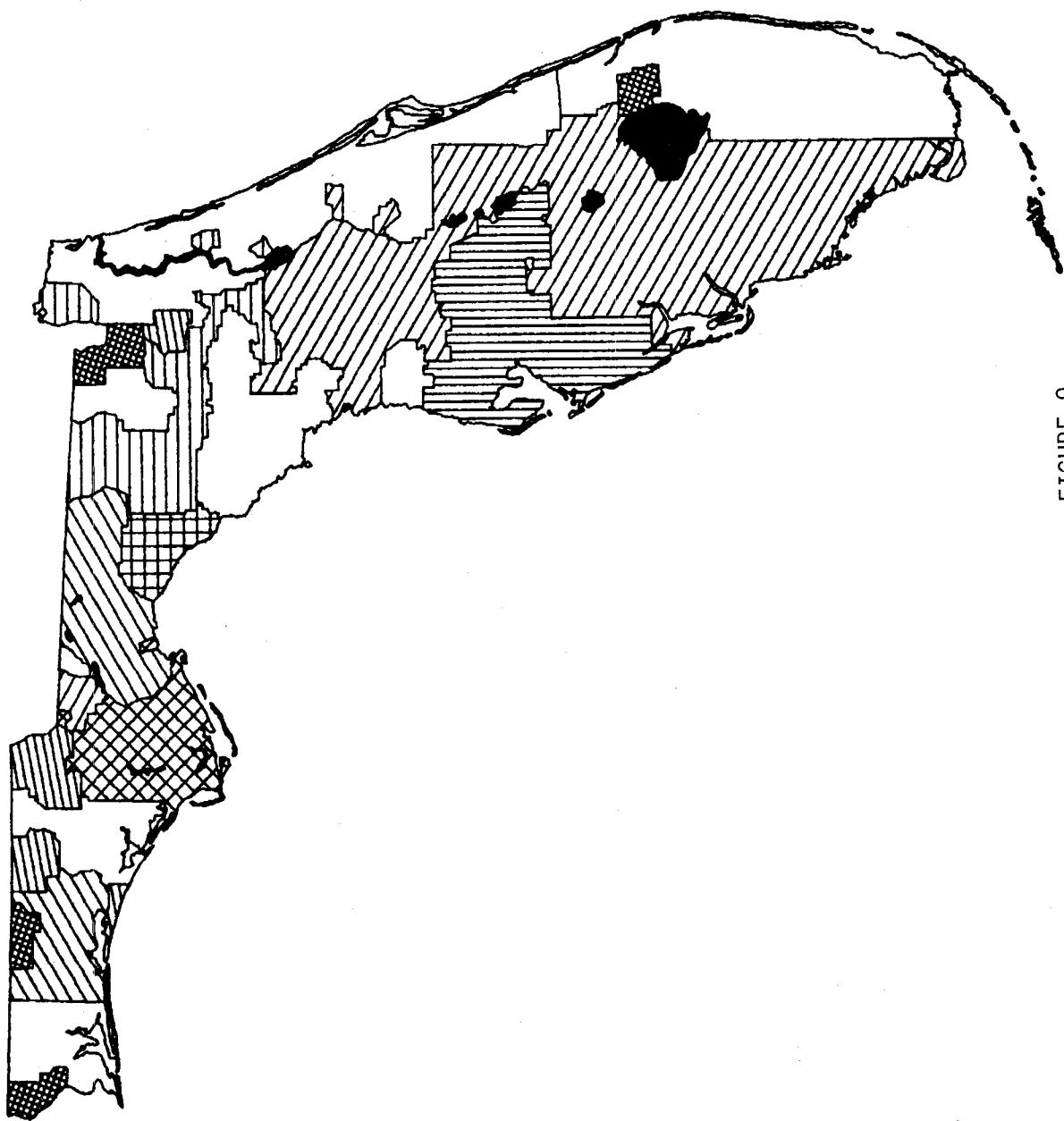


FIGURE 9

GEORGIA

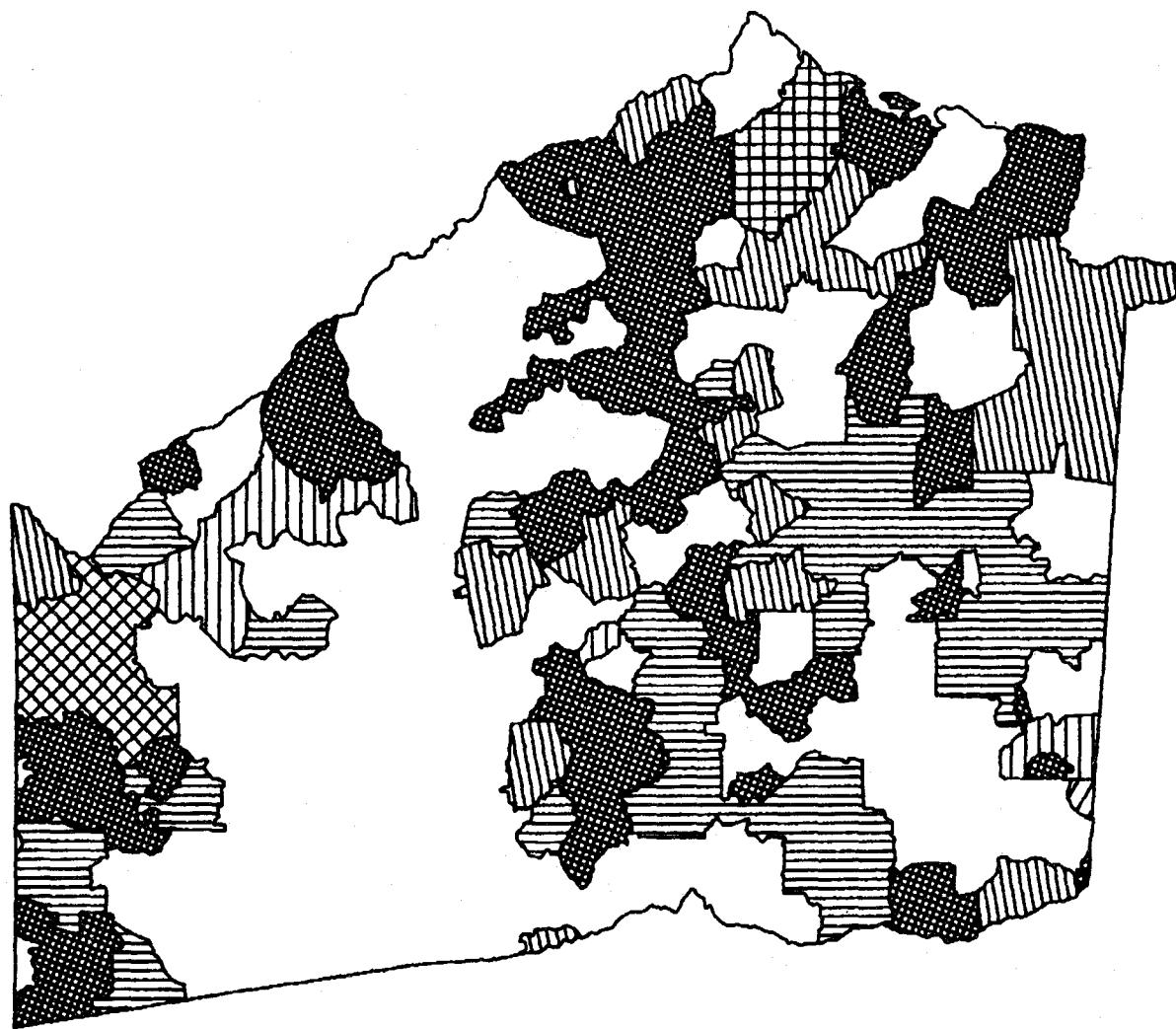


FIGURE 10

HAWAII

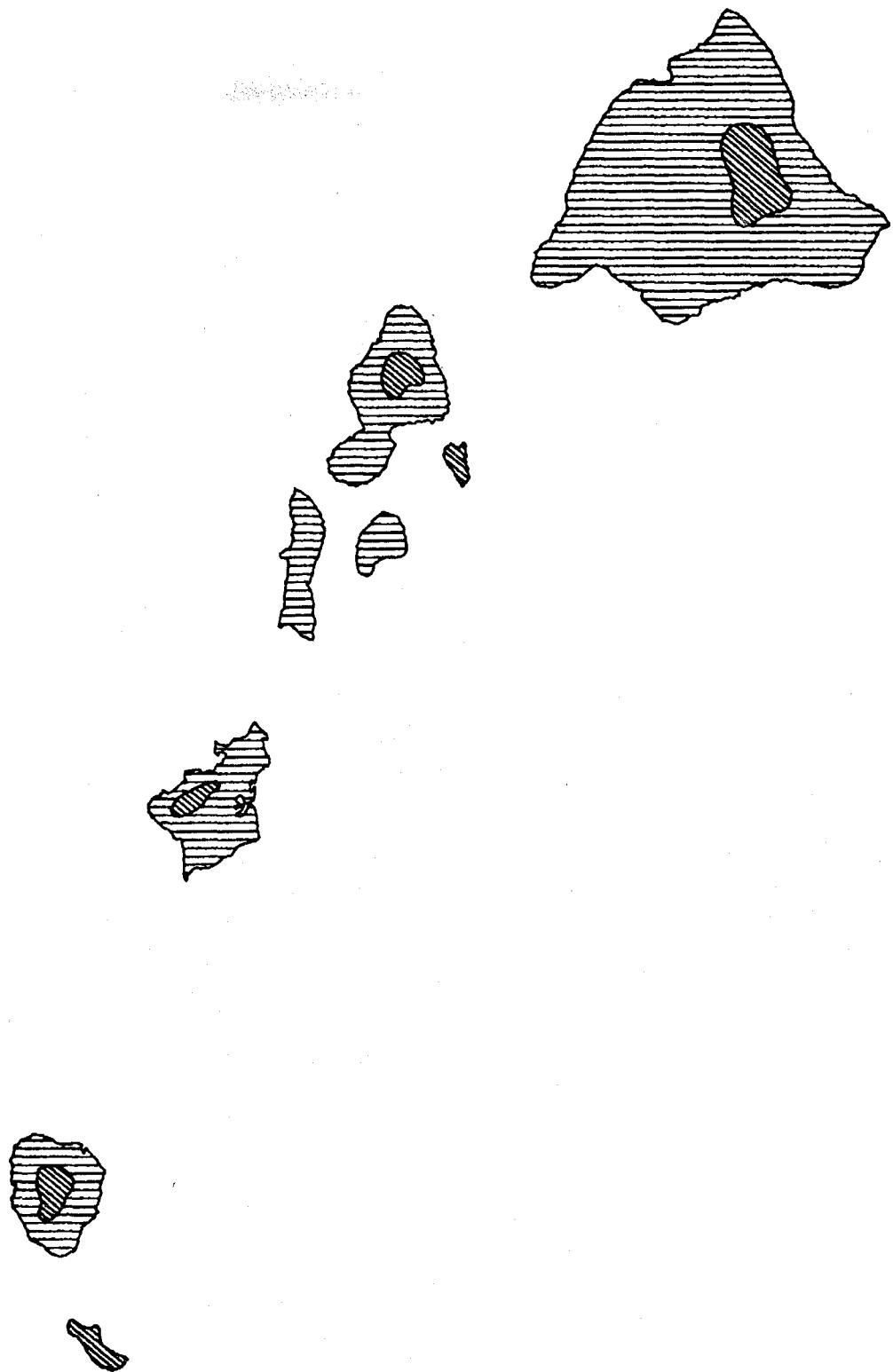


FIGURE 11

IDAHO

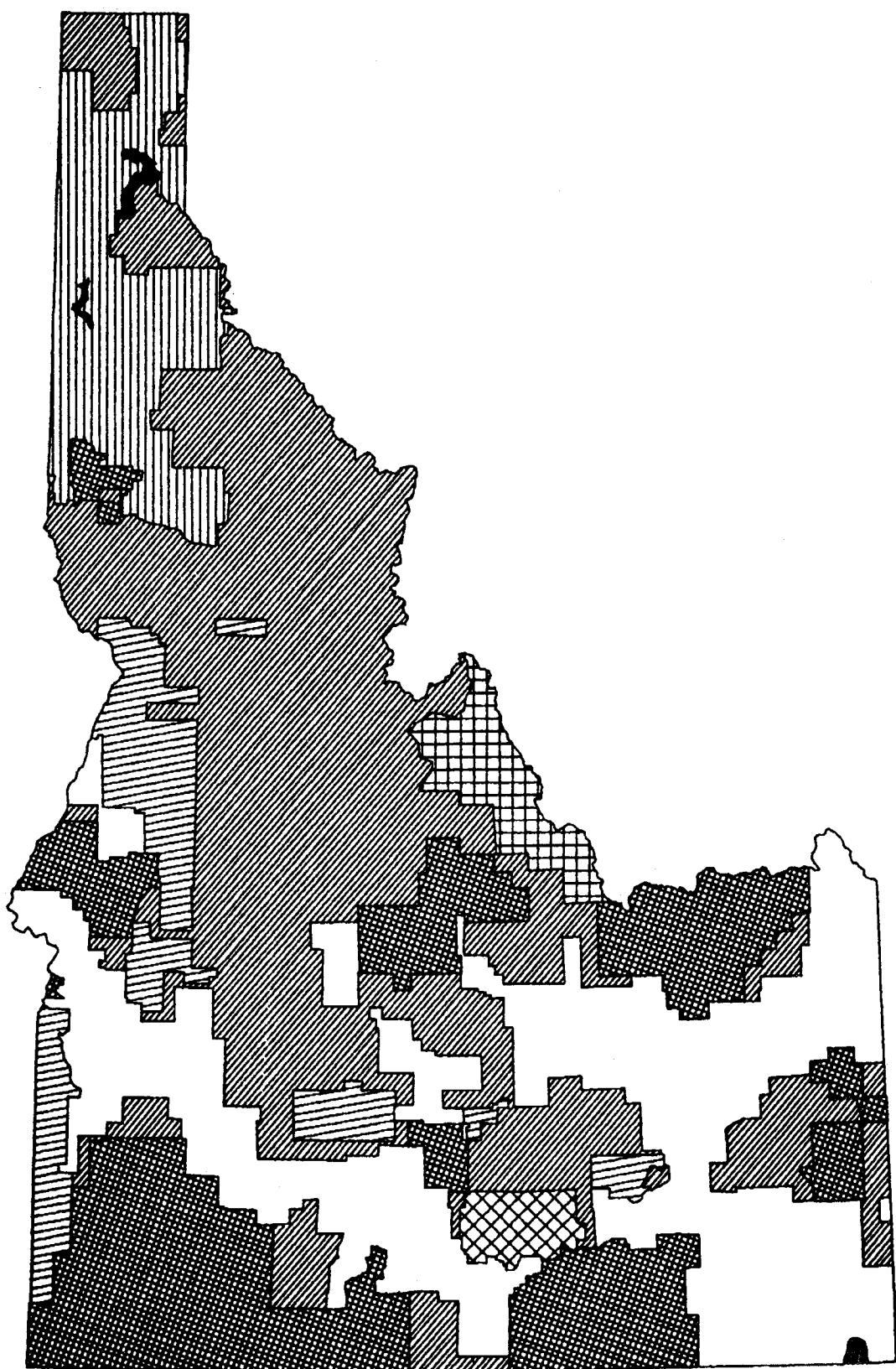


FIGURE 12

ILLINOIS



FIGURE 13

INDIANA

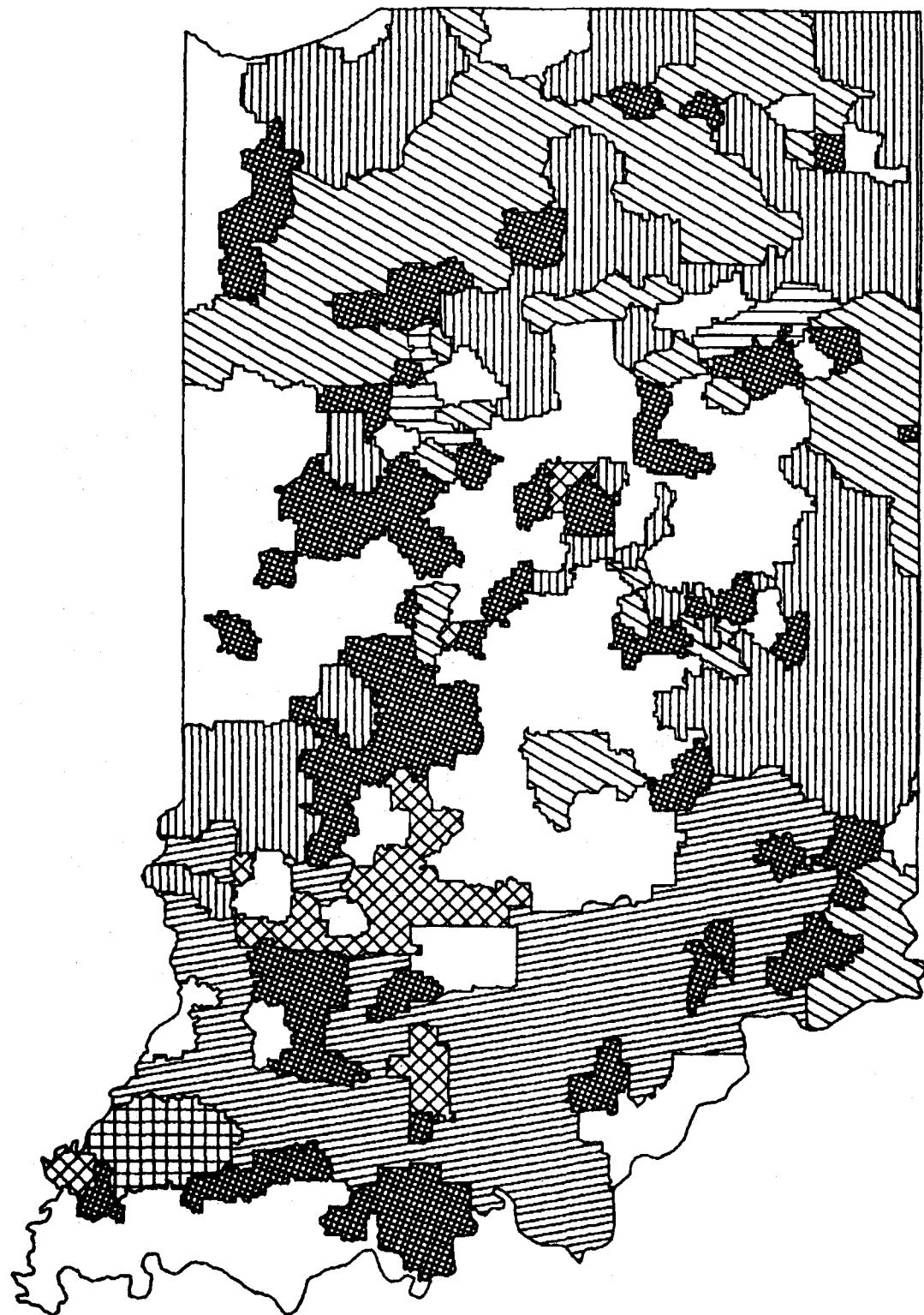


FIGURE 14

IOWA

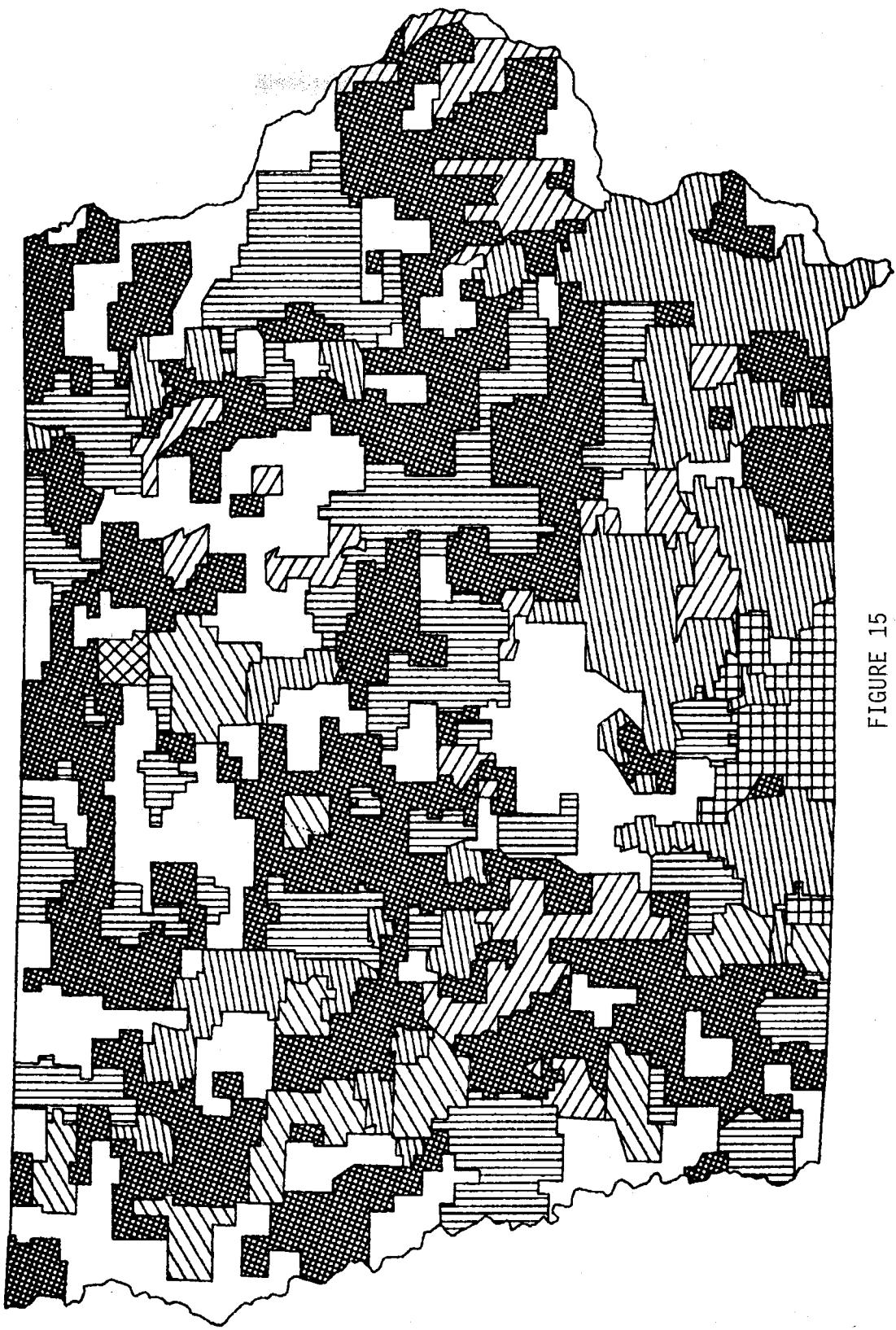


FIGURE 15

KANSAS

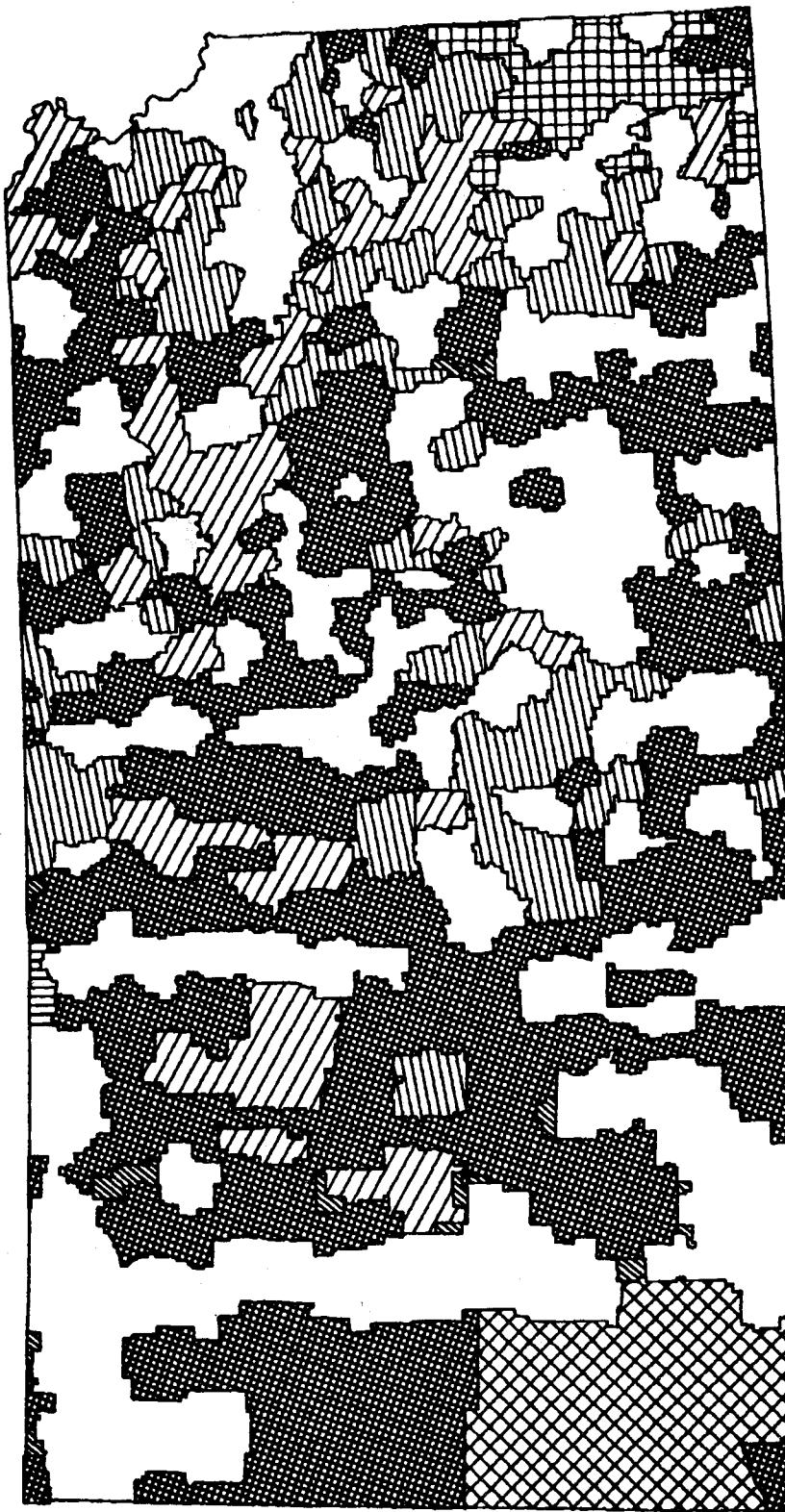


FIGURE 16

KENTUCKY

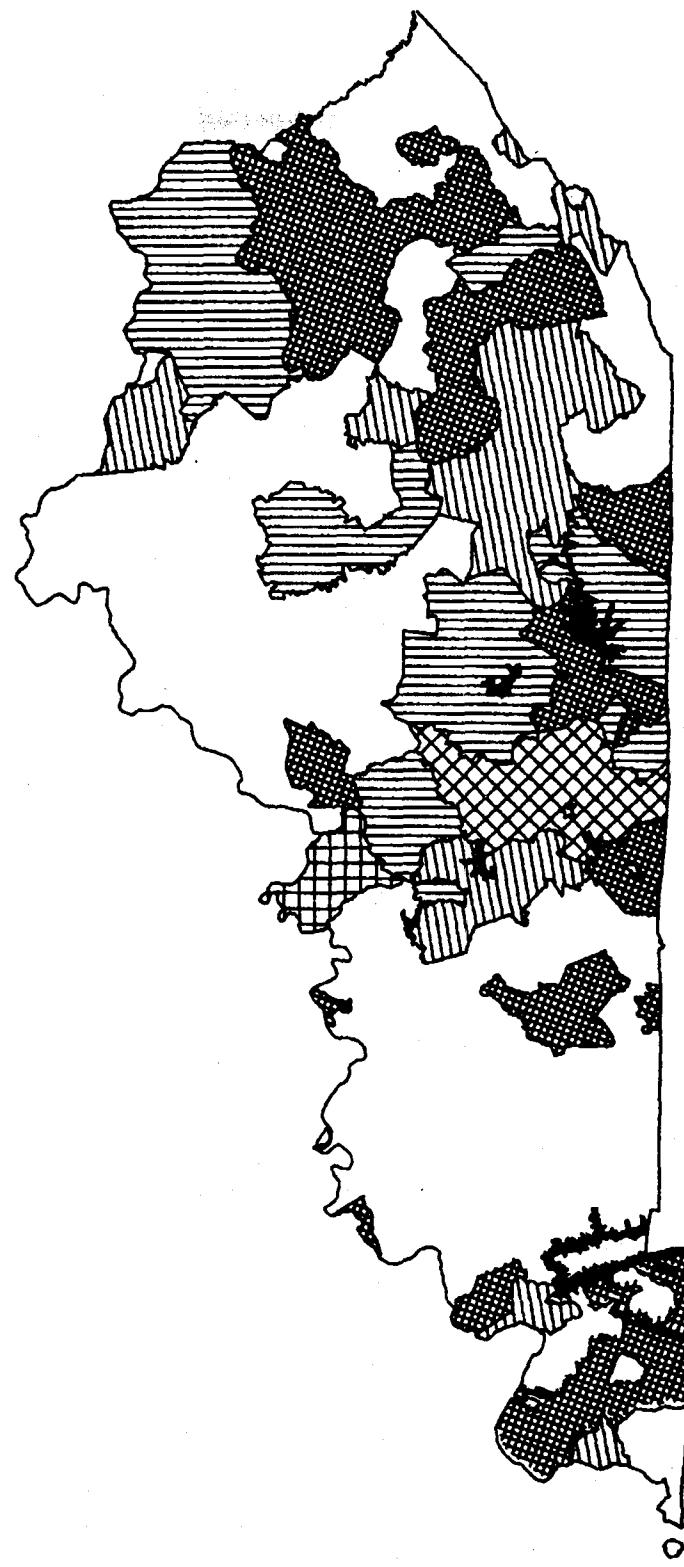


FIGURE 17

LOUISIANA

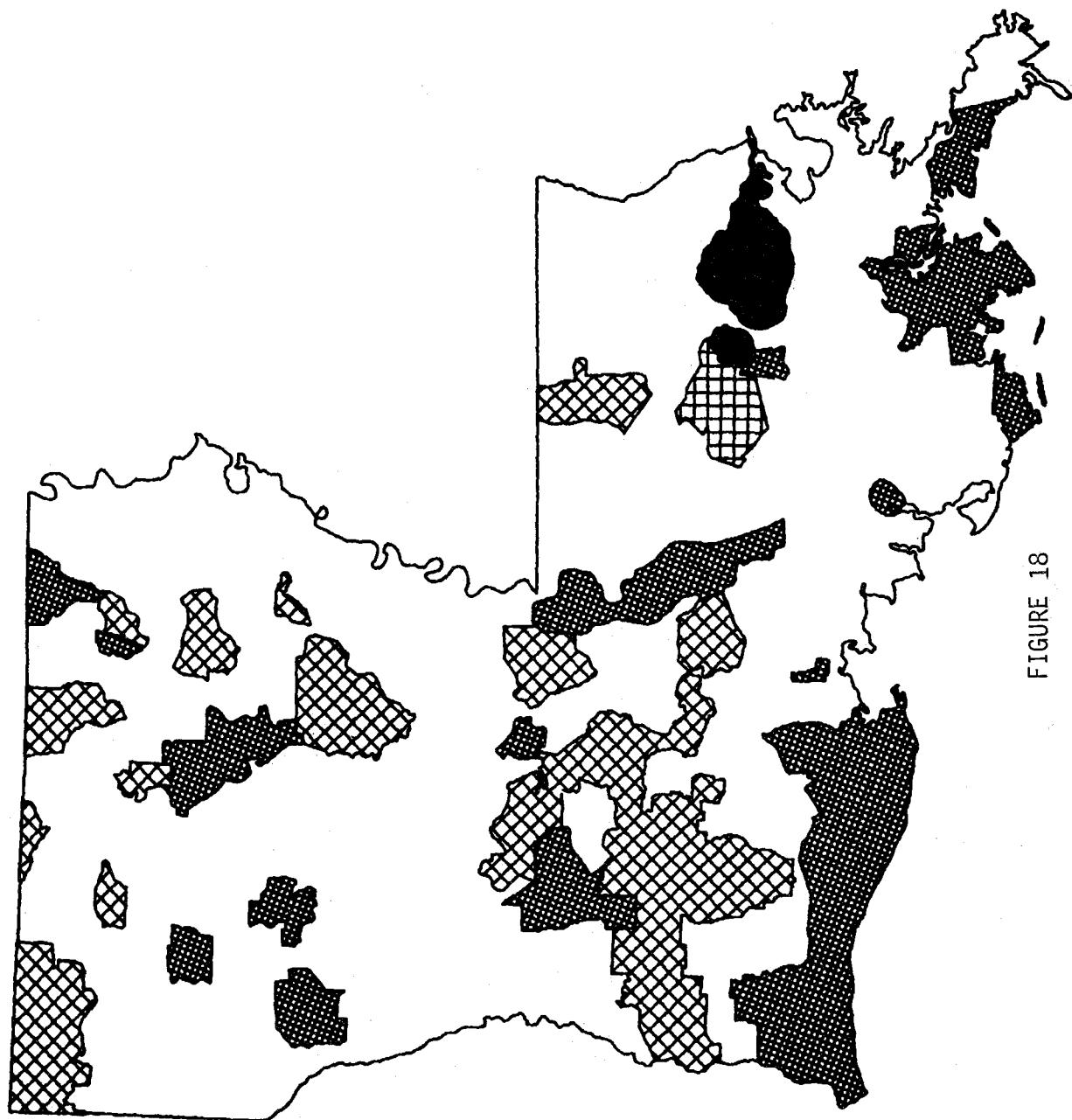


FIGURE 18

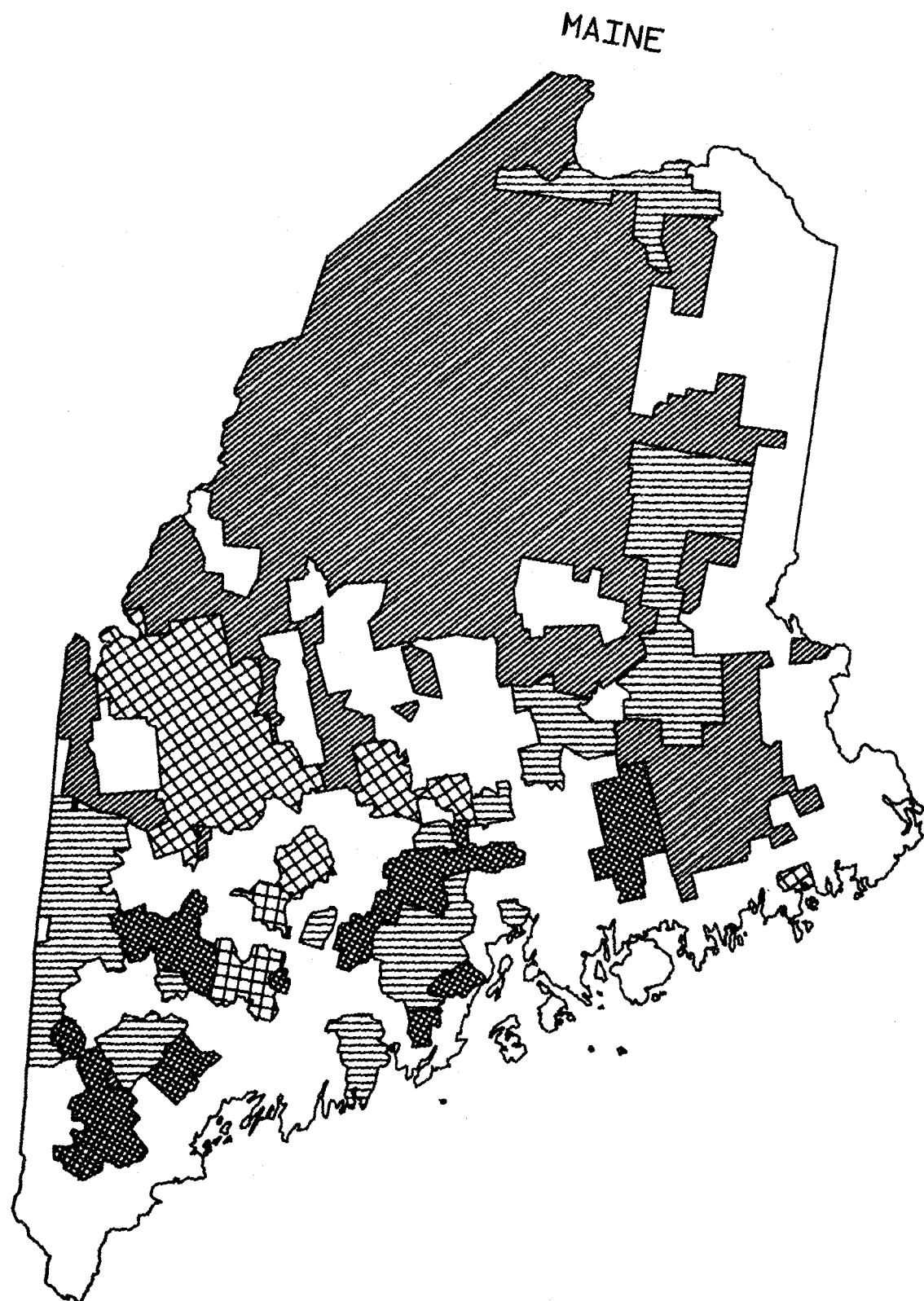


FIGURE 19

MARYLAND



FIGURE 20

MASSACHUSETTS



FIGURE 21

MICHIGAN

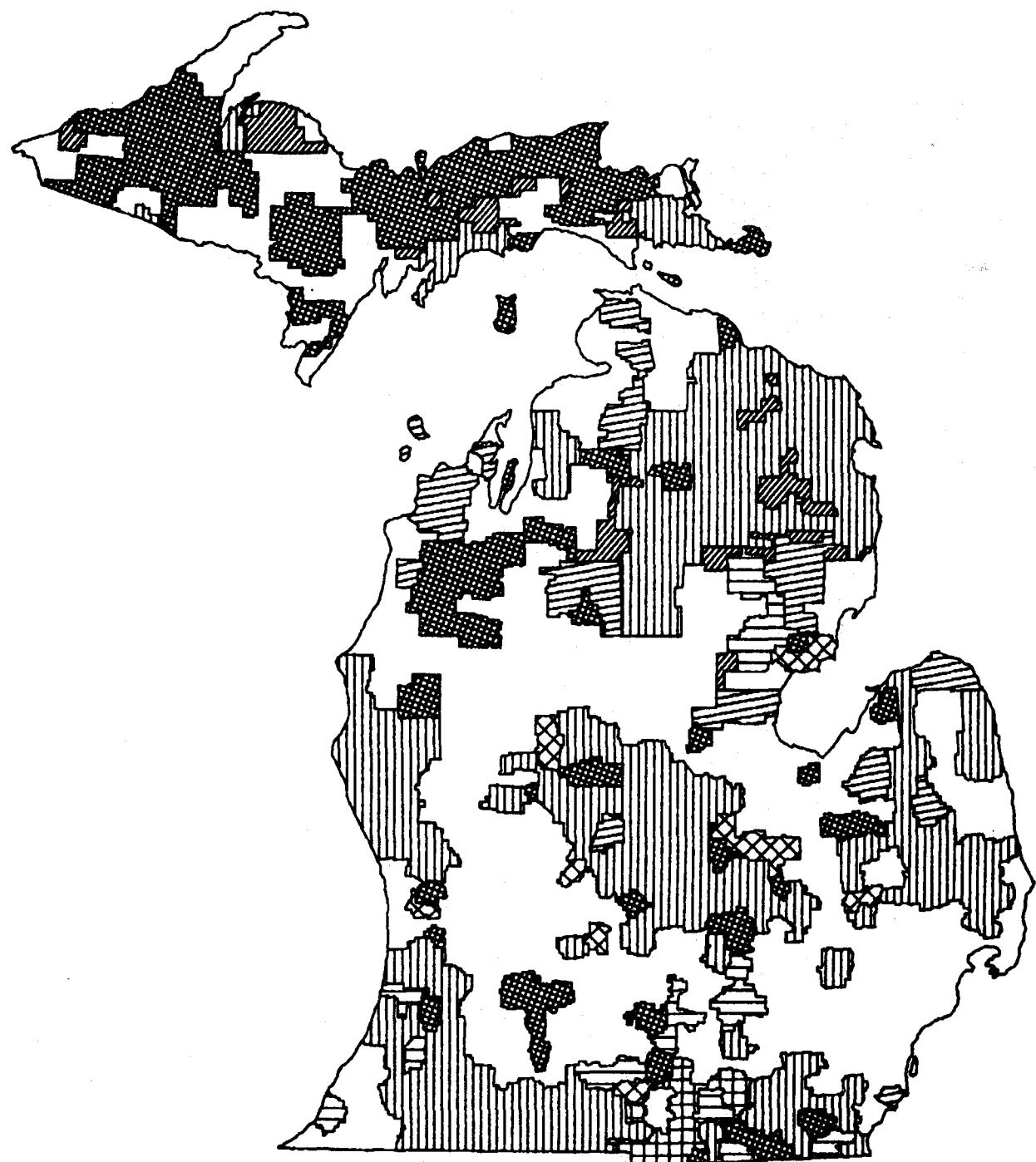


FIGURE 22

MINNESOTA

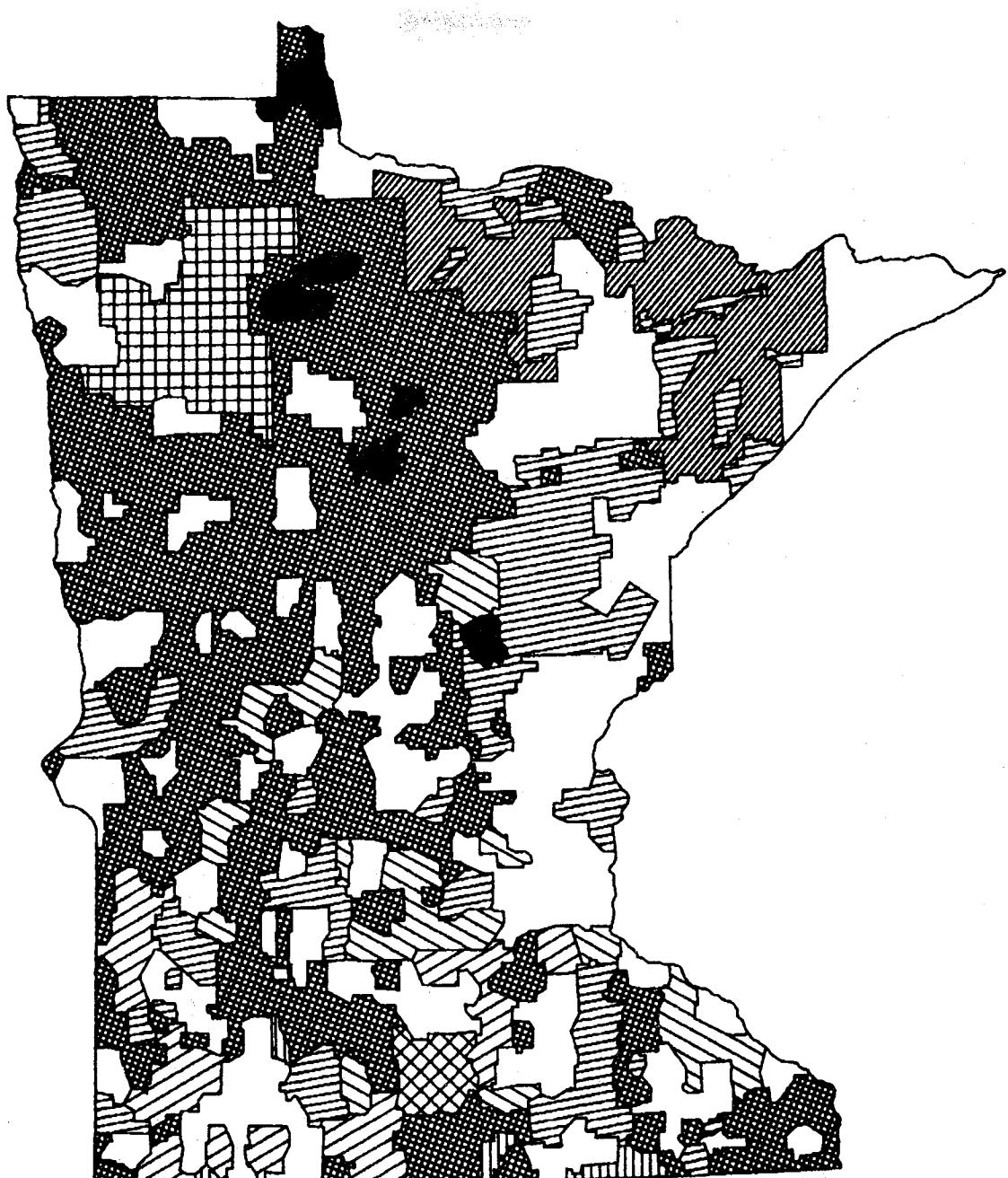


FIGURE 23

MISSISSIPPI

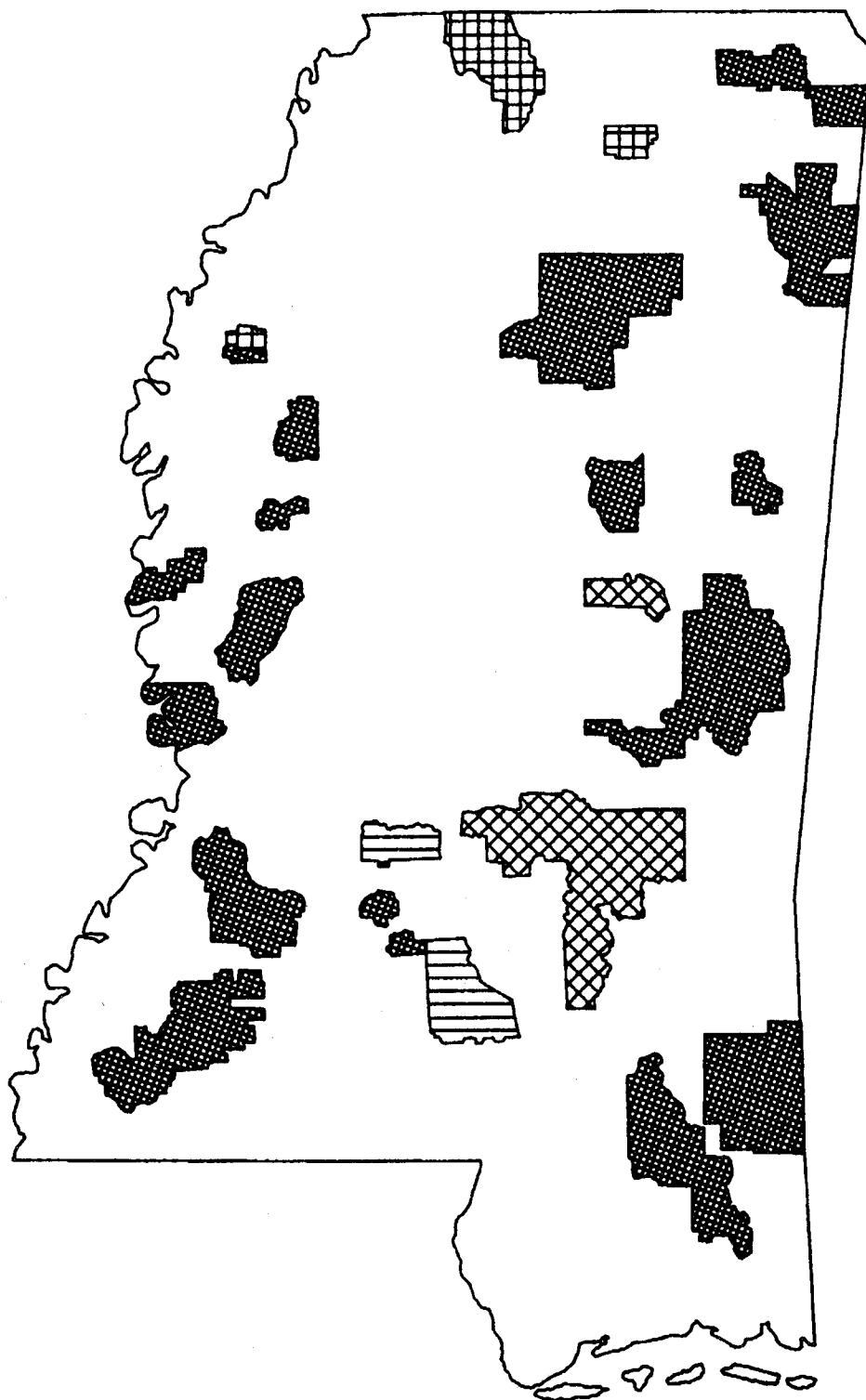


FIGURE 24

MISSOURI

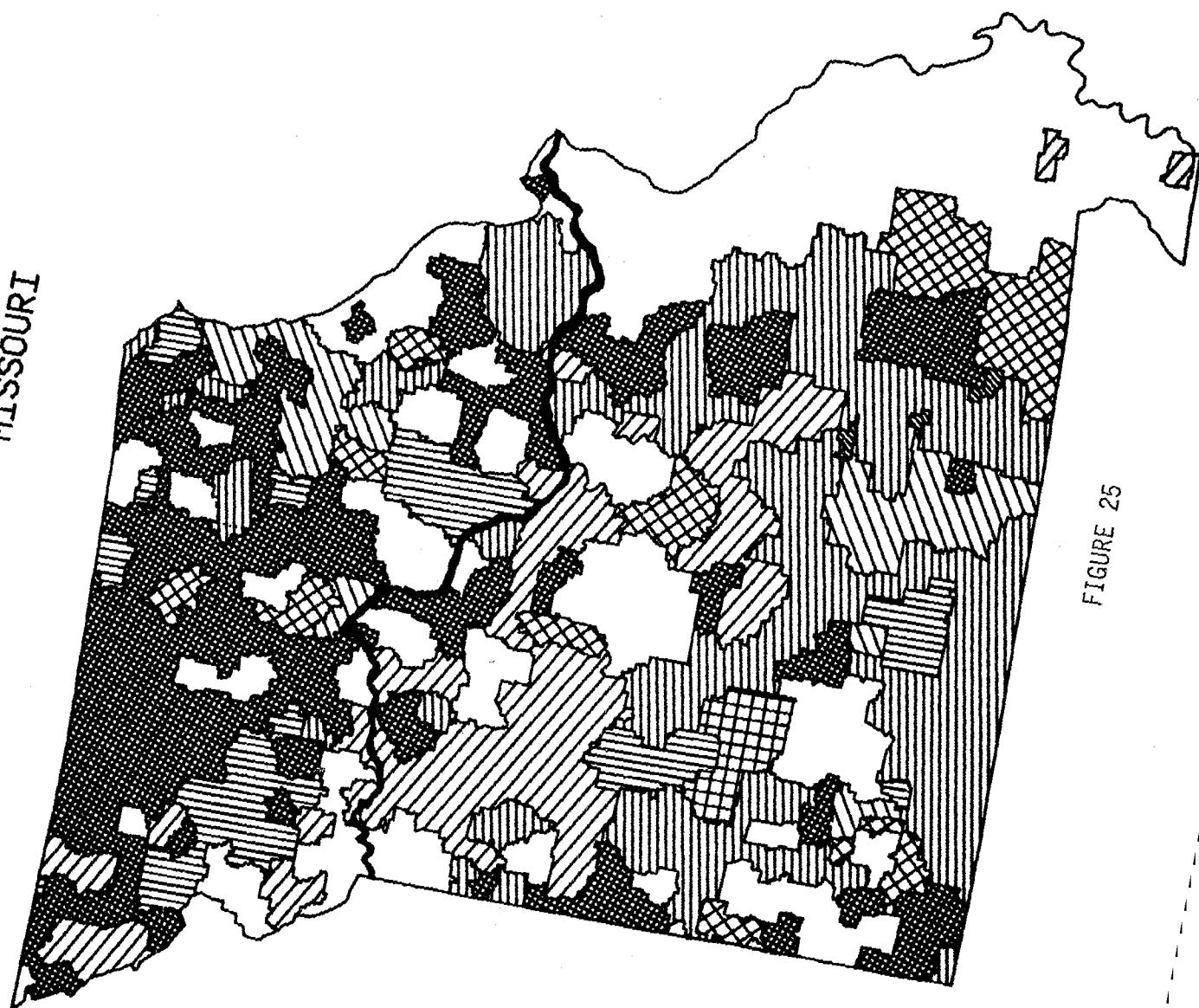


FIGURE 25

MONTANA

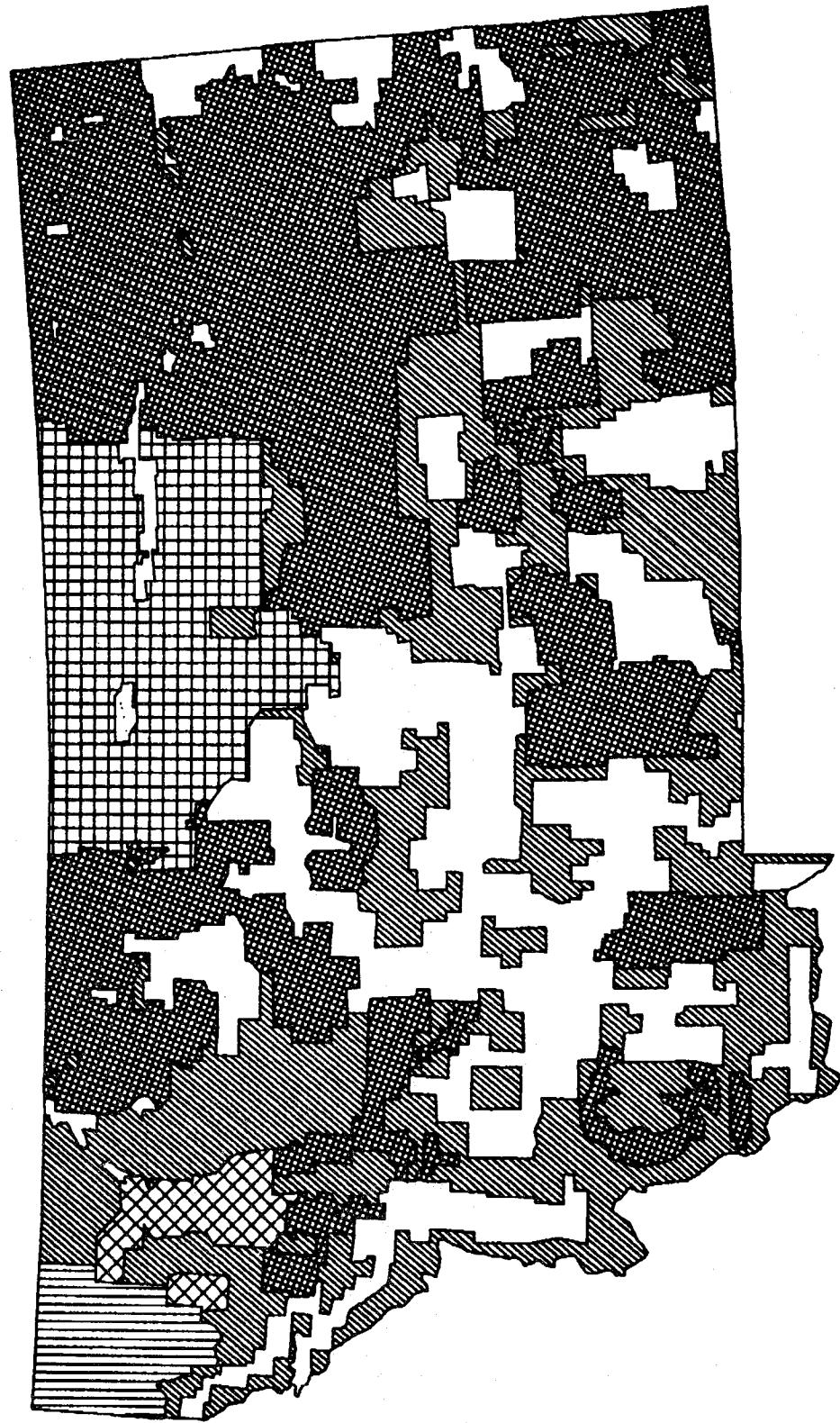


FIGURE 26

NEBRASKA

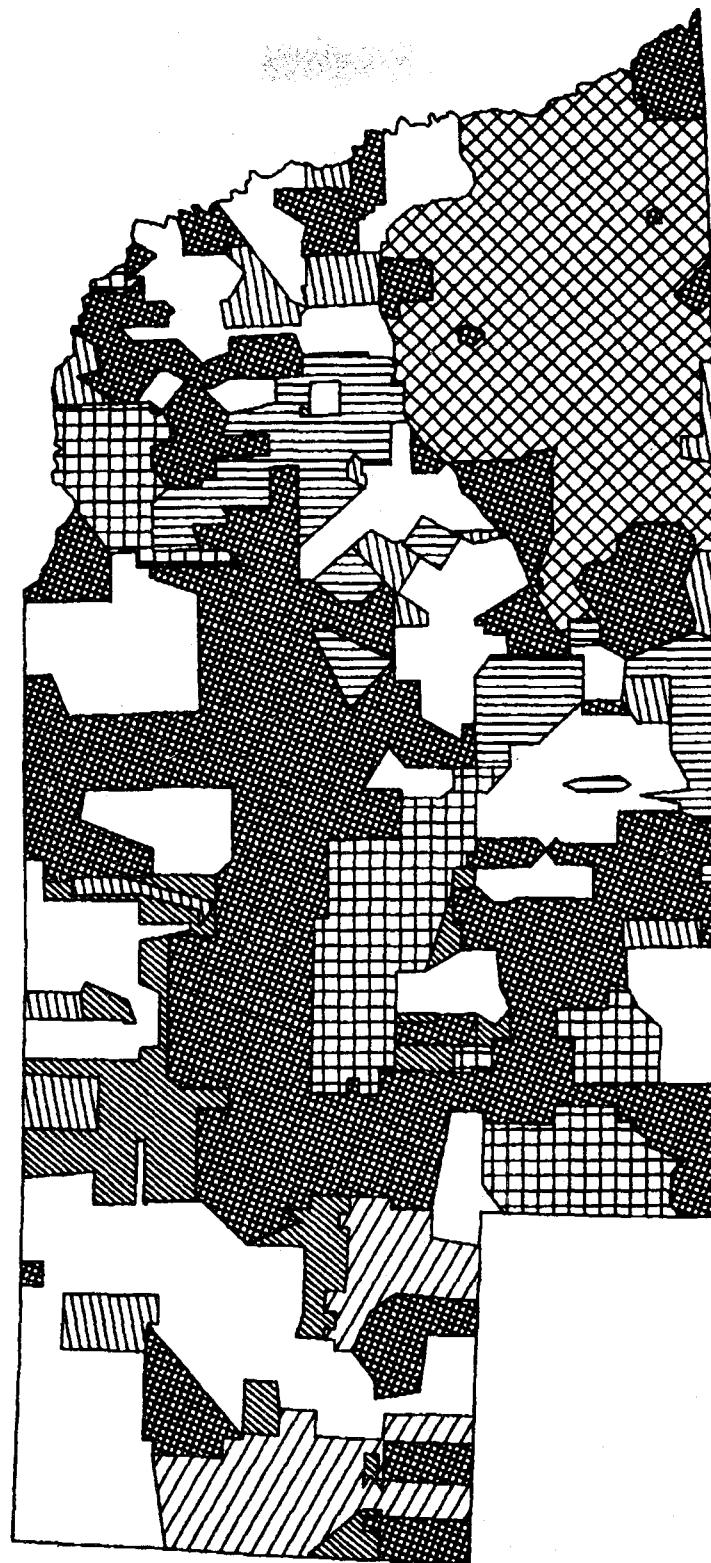


FIGURE 27

NEVADA

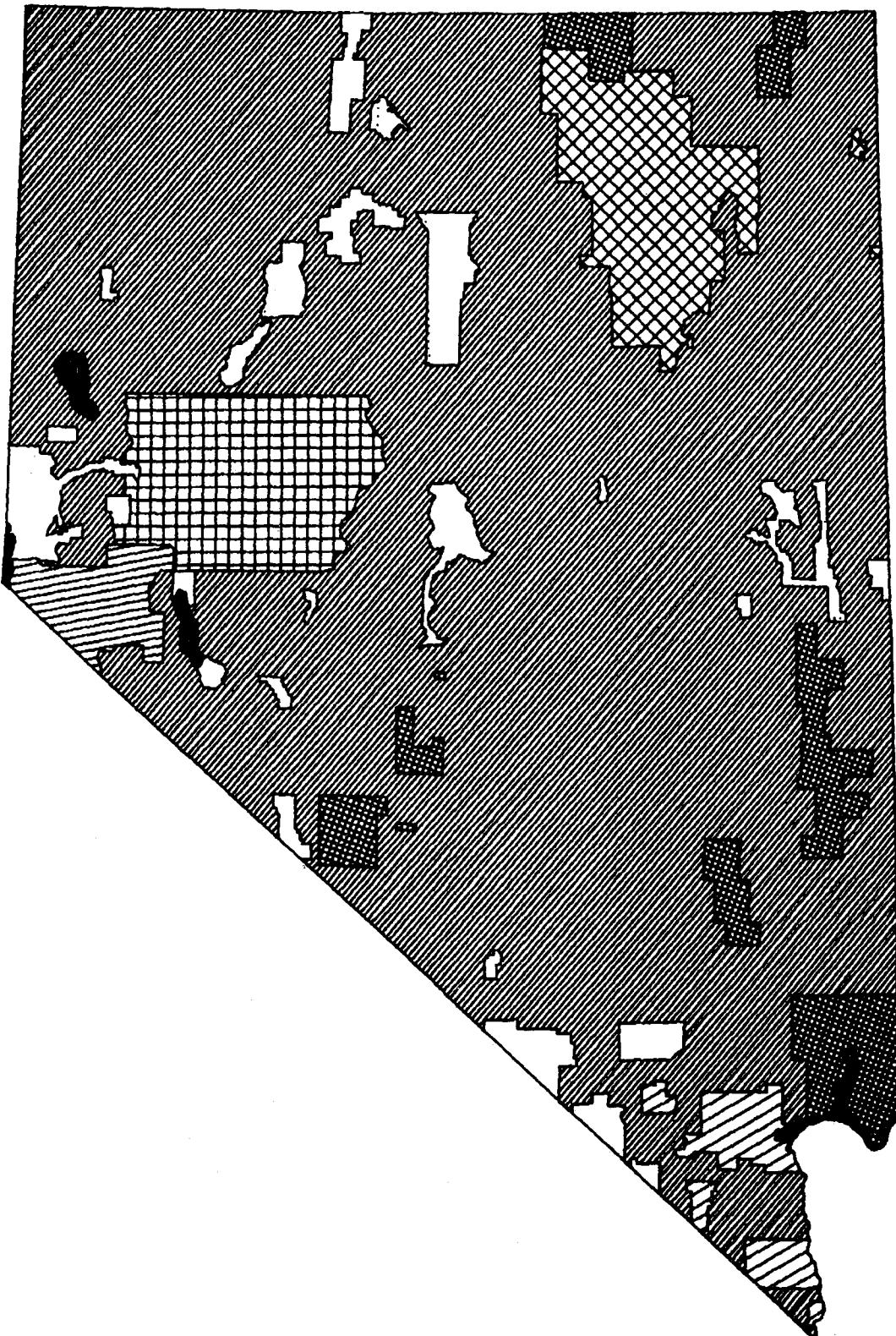


FIGURE 28

NEW HAMPSHIRE

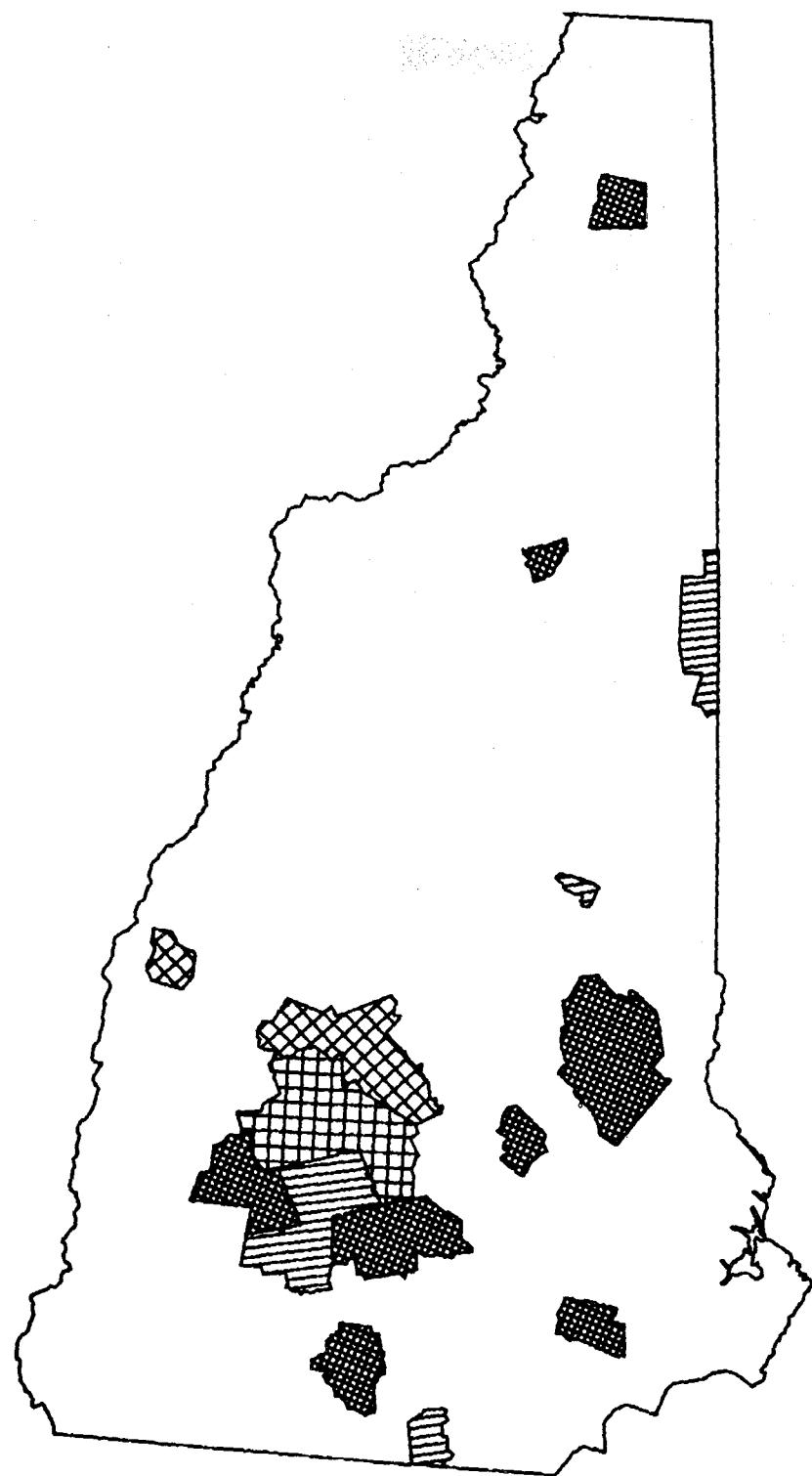


FIGURE 29

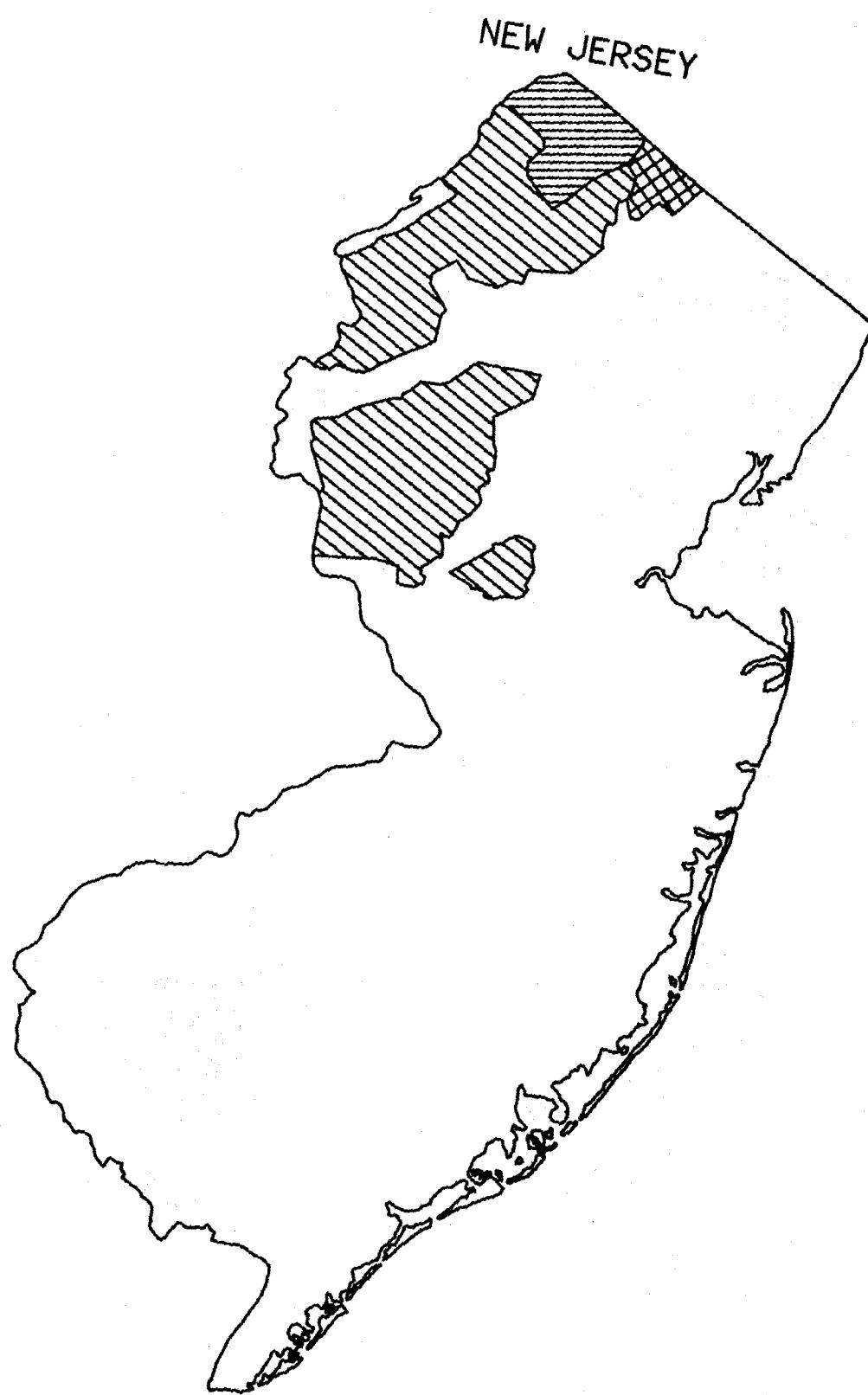


FIGURE 30

NEW MEXICO



FIGURE 31

NEW YORK

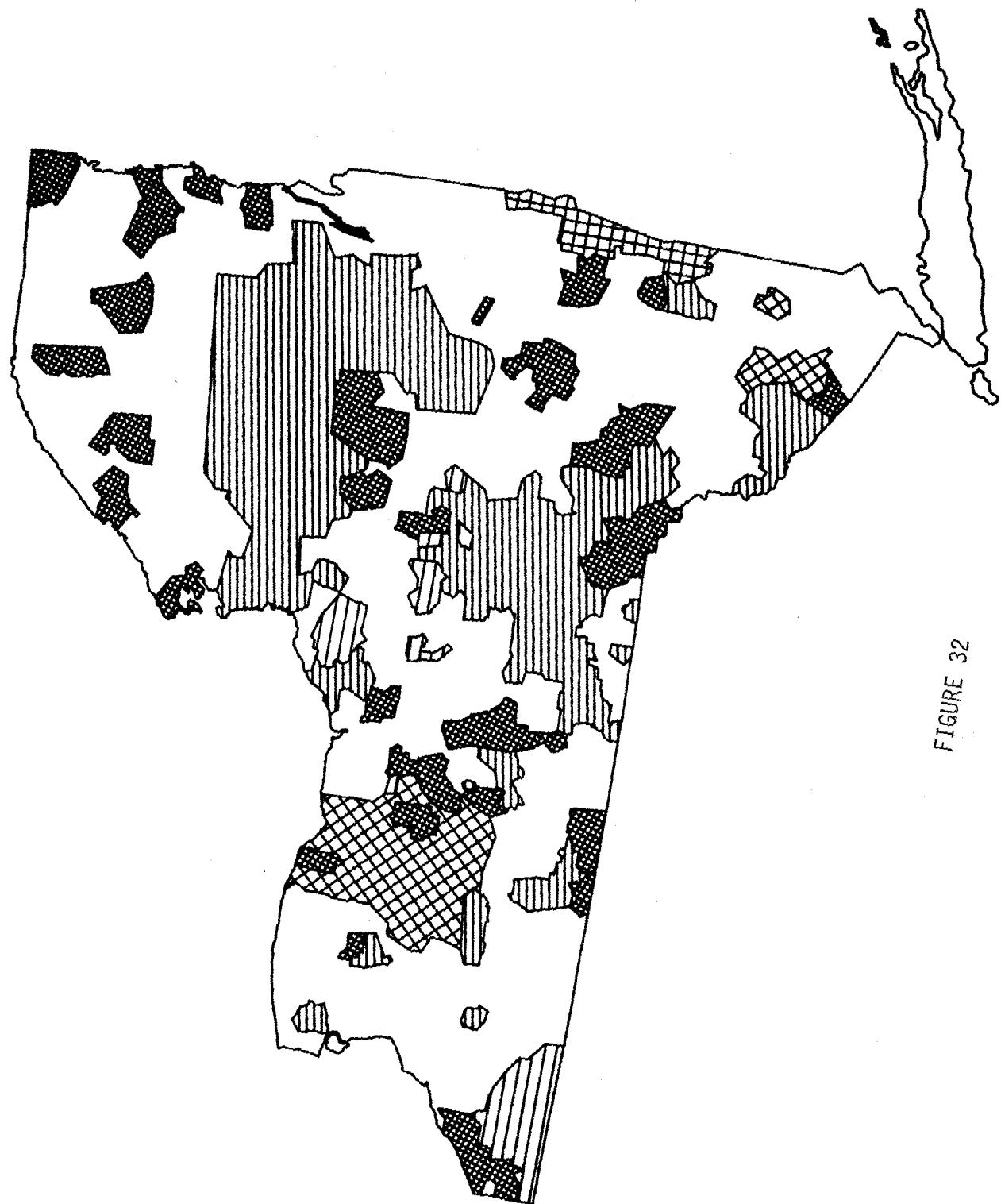


FIGURE 32

NORTH CAROLINA

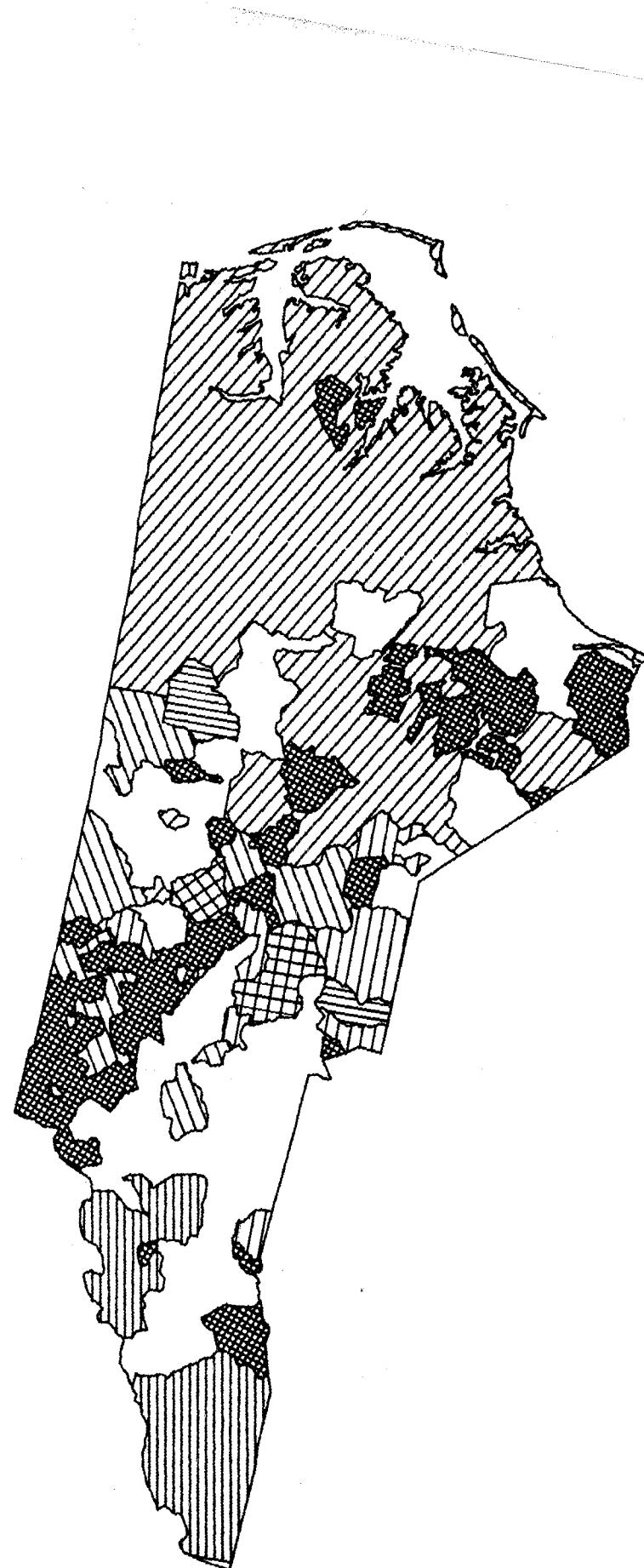


FIGURE 33

NORTH DAKOTA

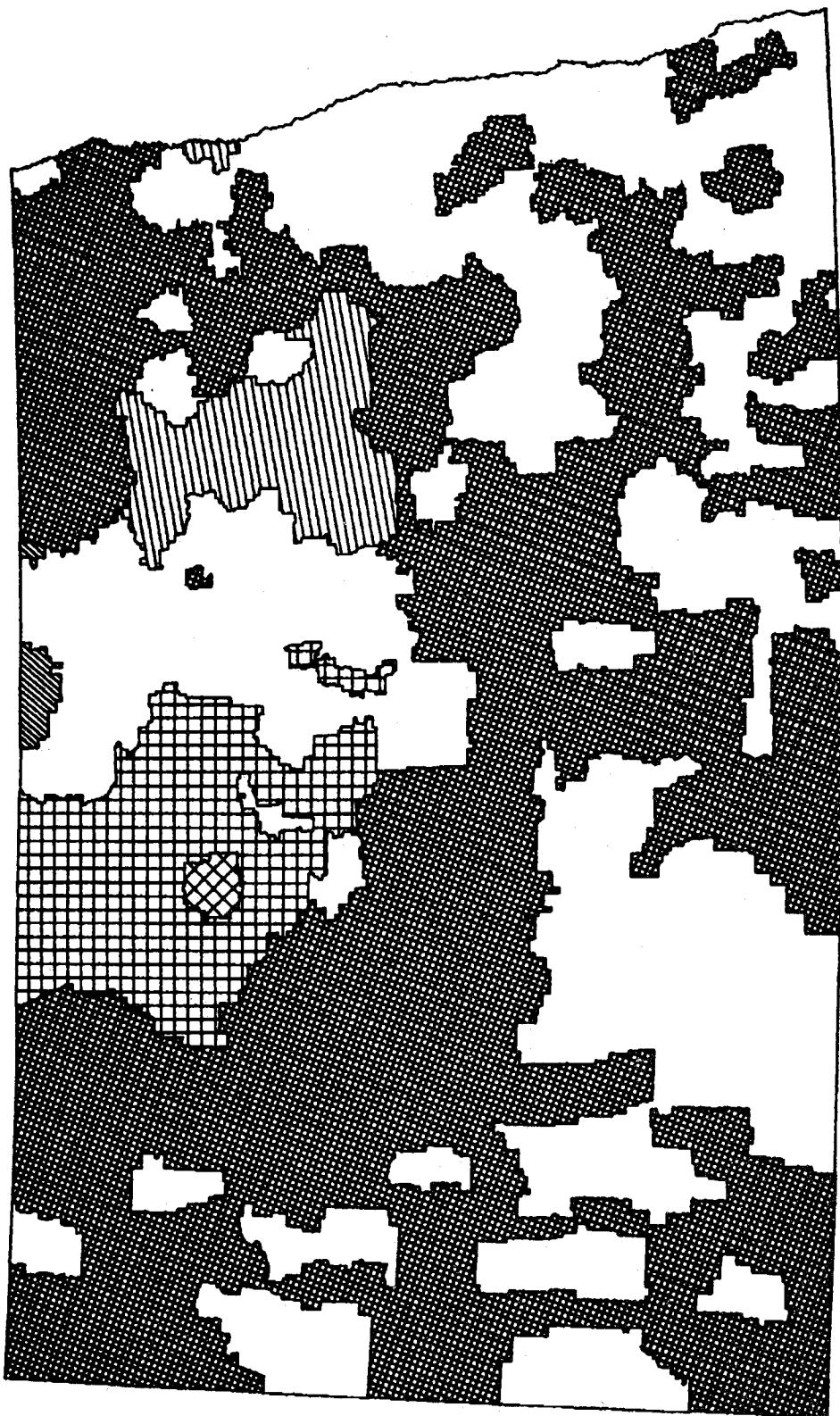


FIGURE 34

OHIO



FIGURE 35

OKLAHOMA

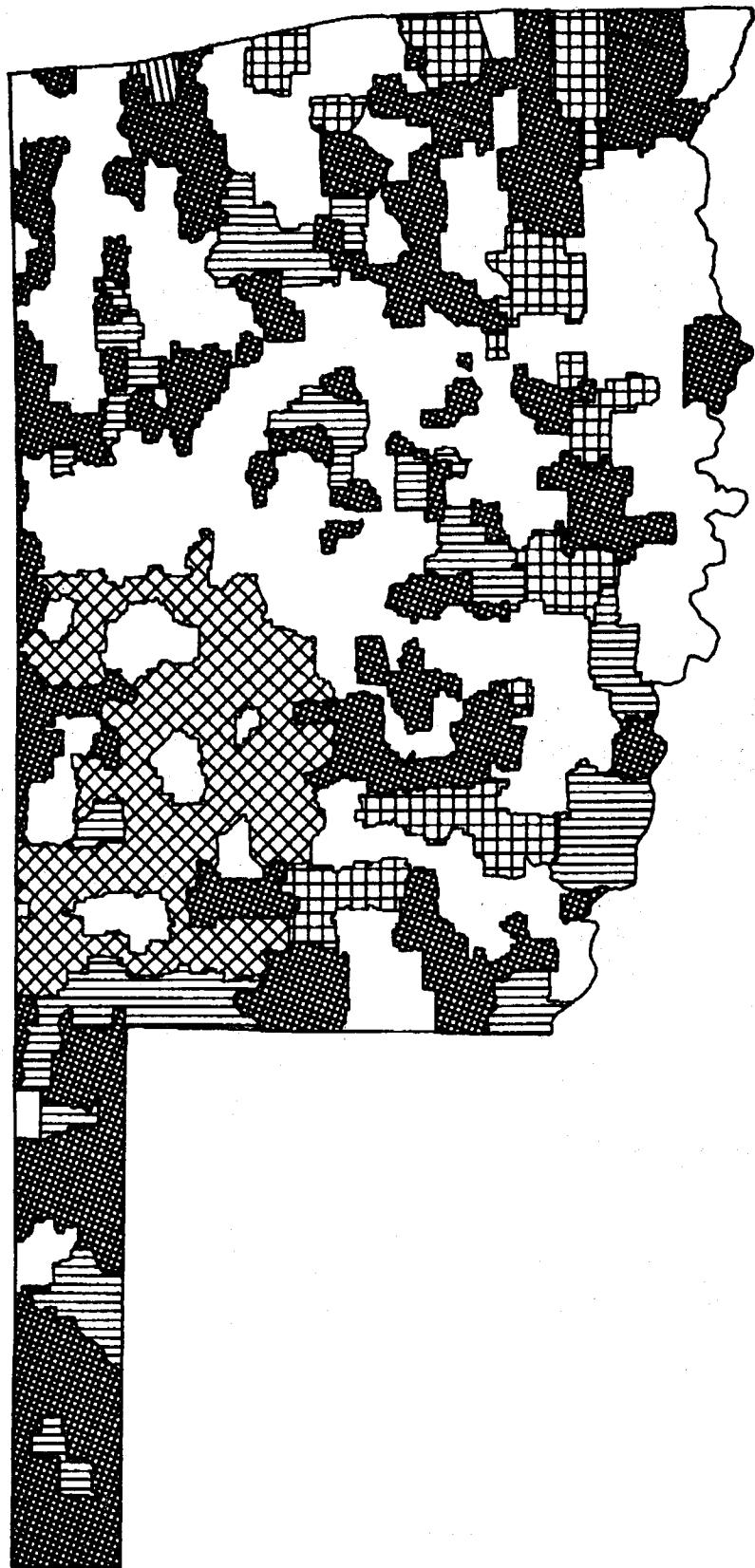


FIGURE 36

OREGON

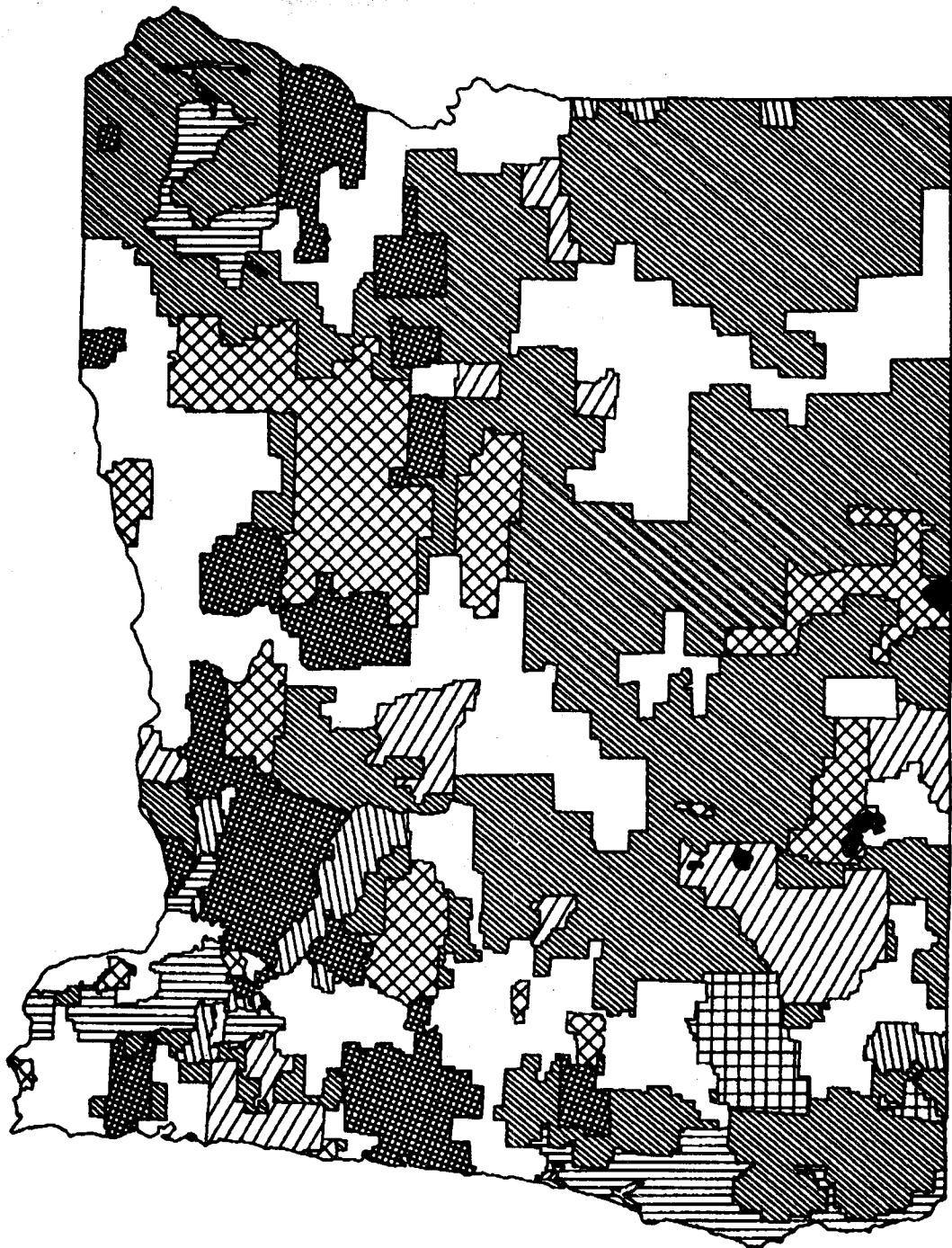


FIGURE 37

PENNSYLVANIA



FIGURE 38

RHODE ISLAND



FIGURE 39

SOUTH CAROLINA

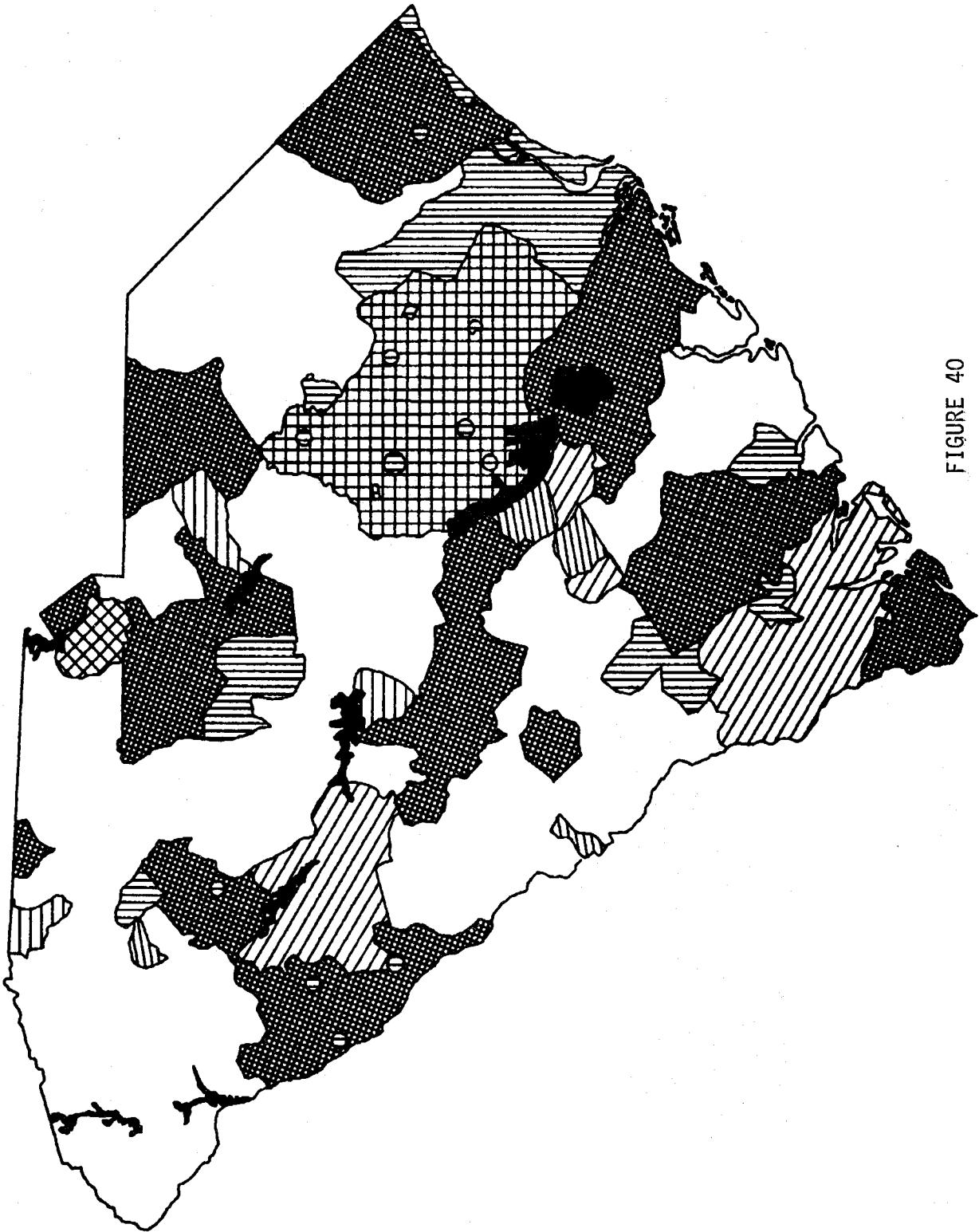


FIGURE 40

SOUTH DAKOTA

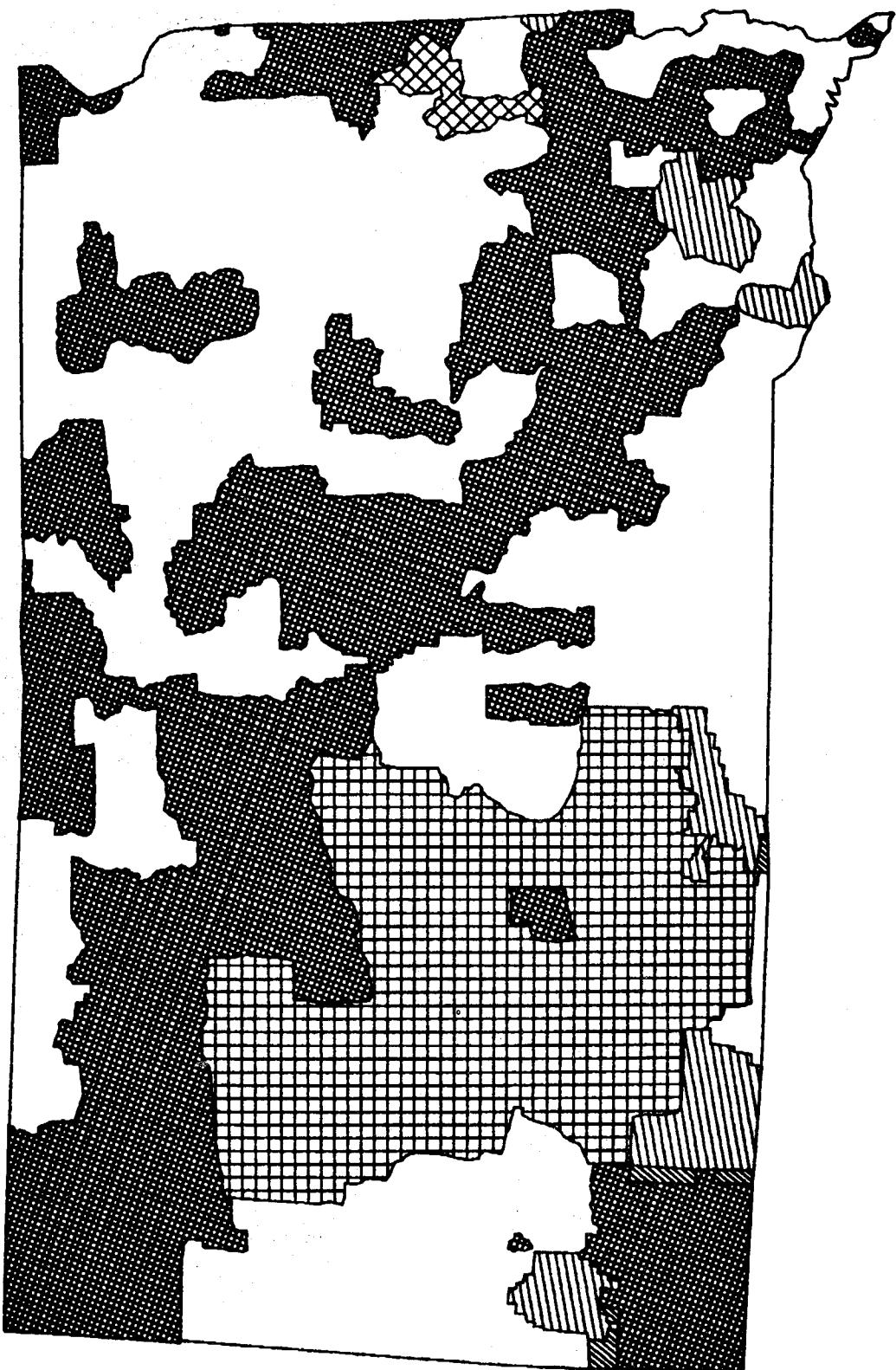


FIGURE 41

TENNESSEE

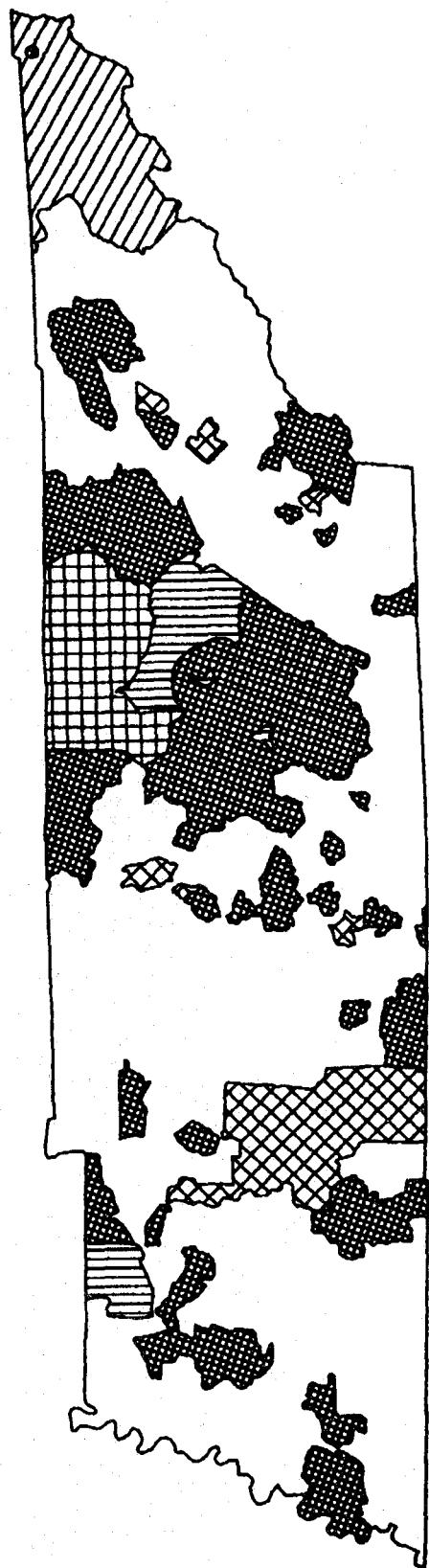


FIGURE 42

TEXAS (UPPER)

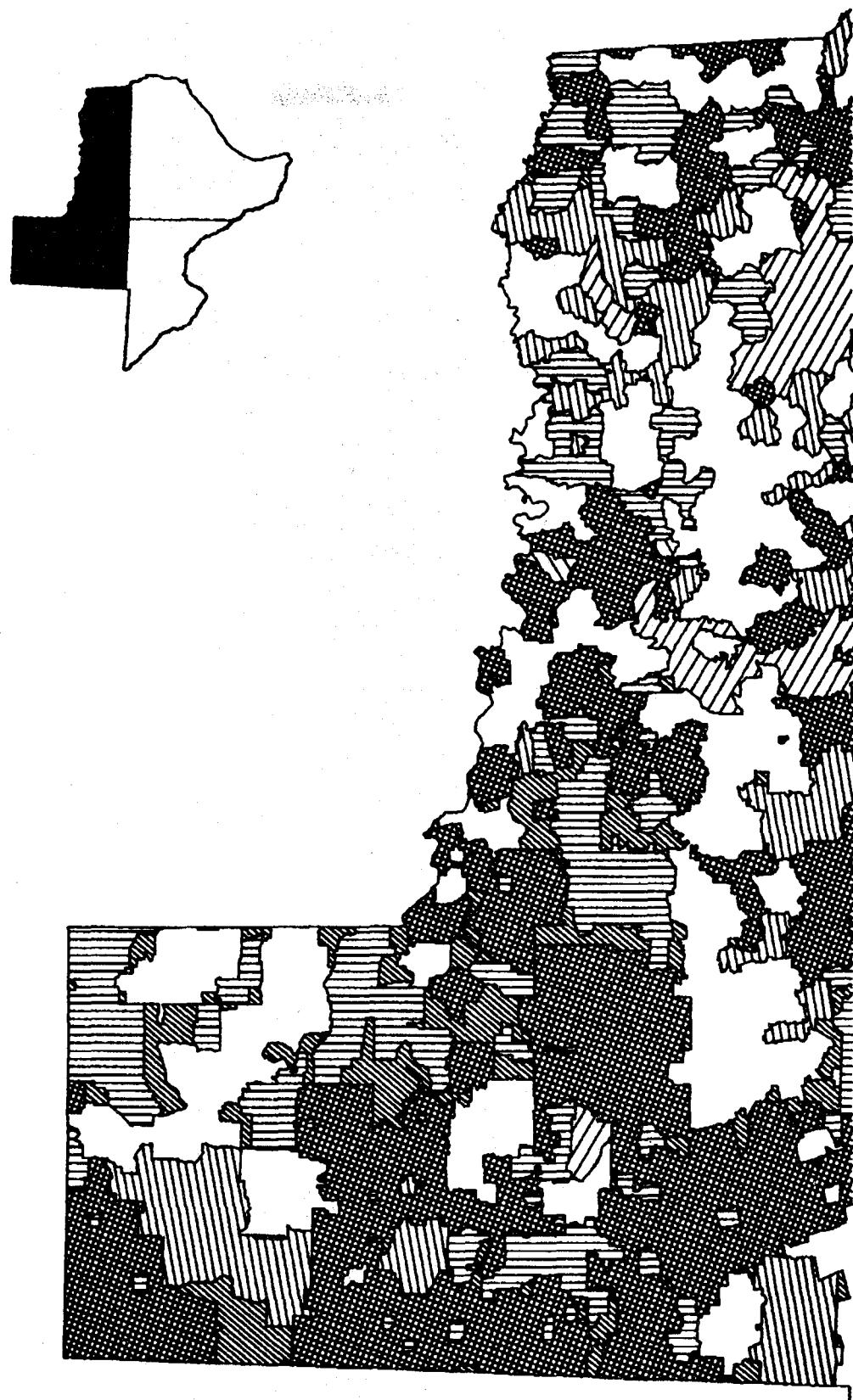


FIGURE 43a

TEXAS (LOWER LEFT)

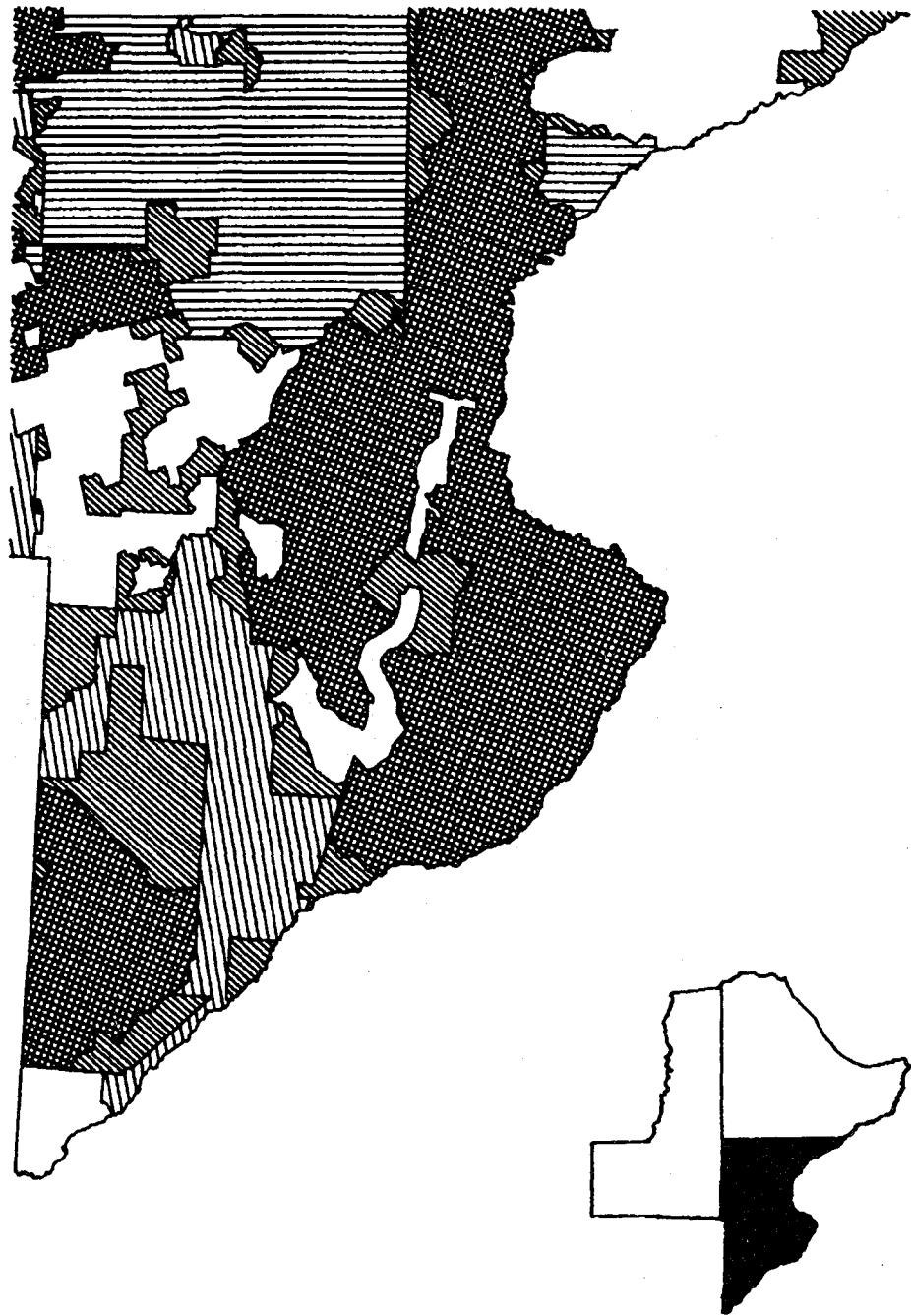


FIGURE 43b

TEXAS (LOWER RIGHT)

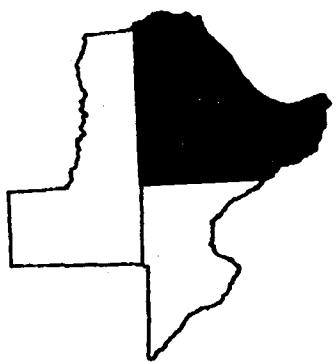
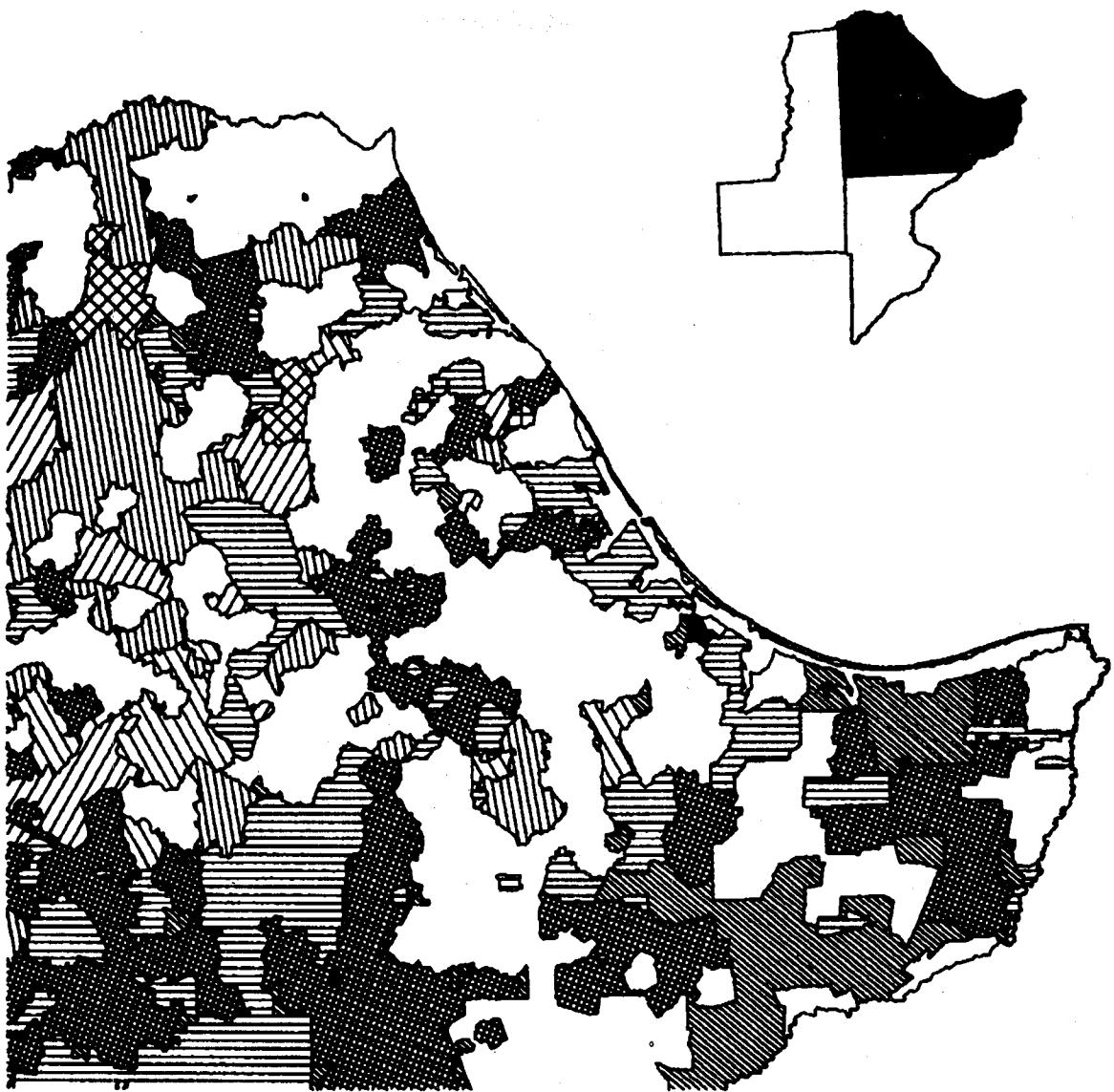


FIGURE 43c

UTAH

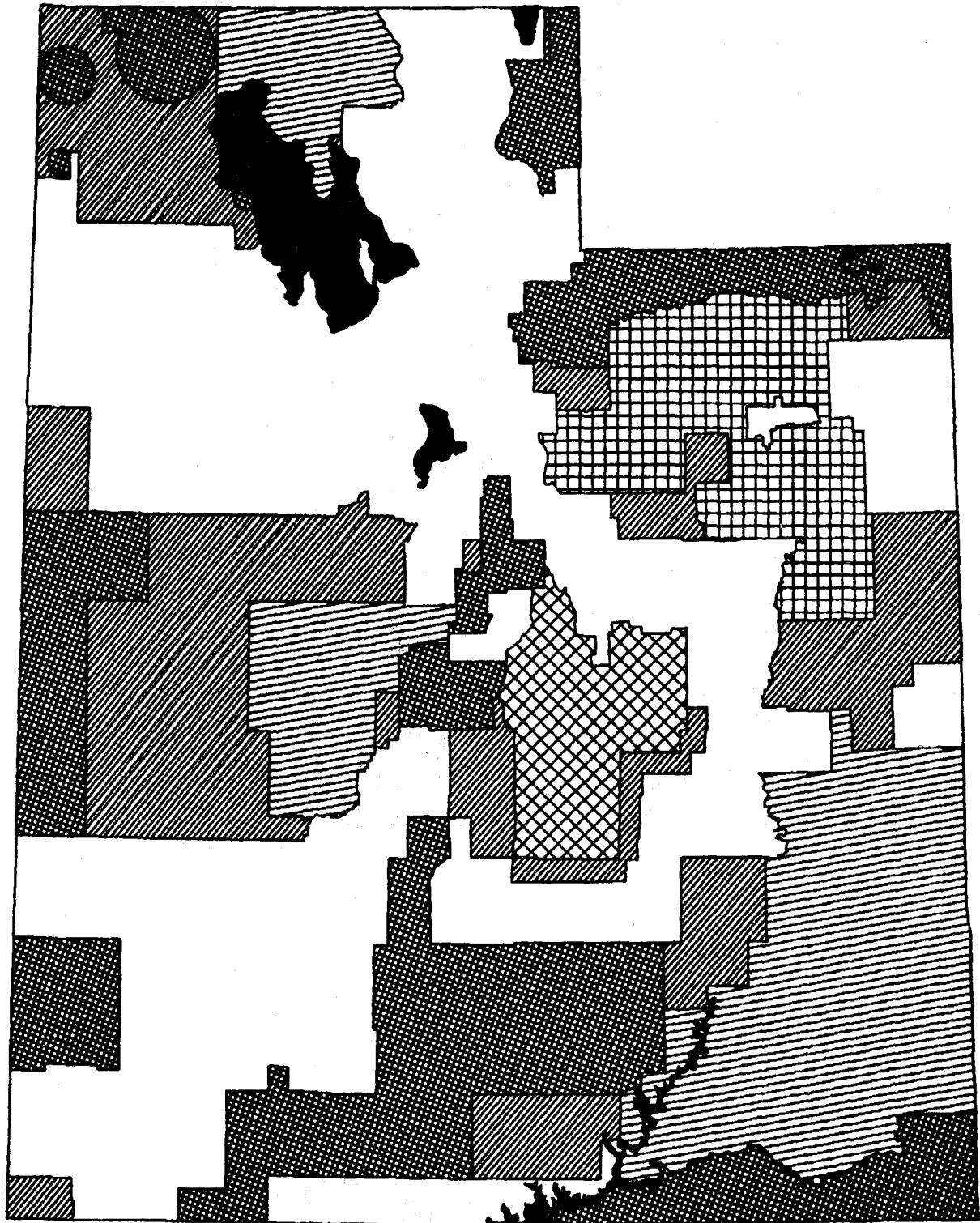


FIGURE 44

VERMONT

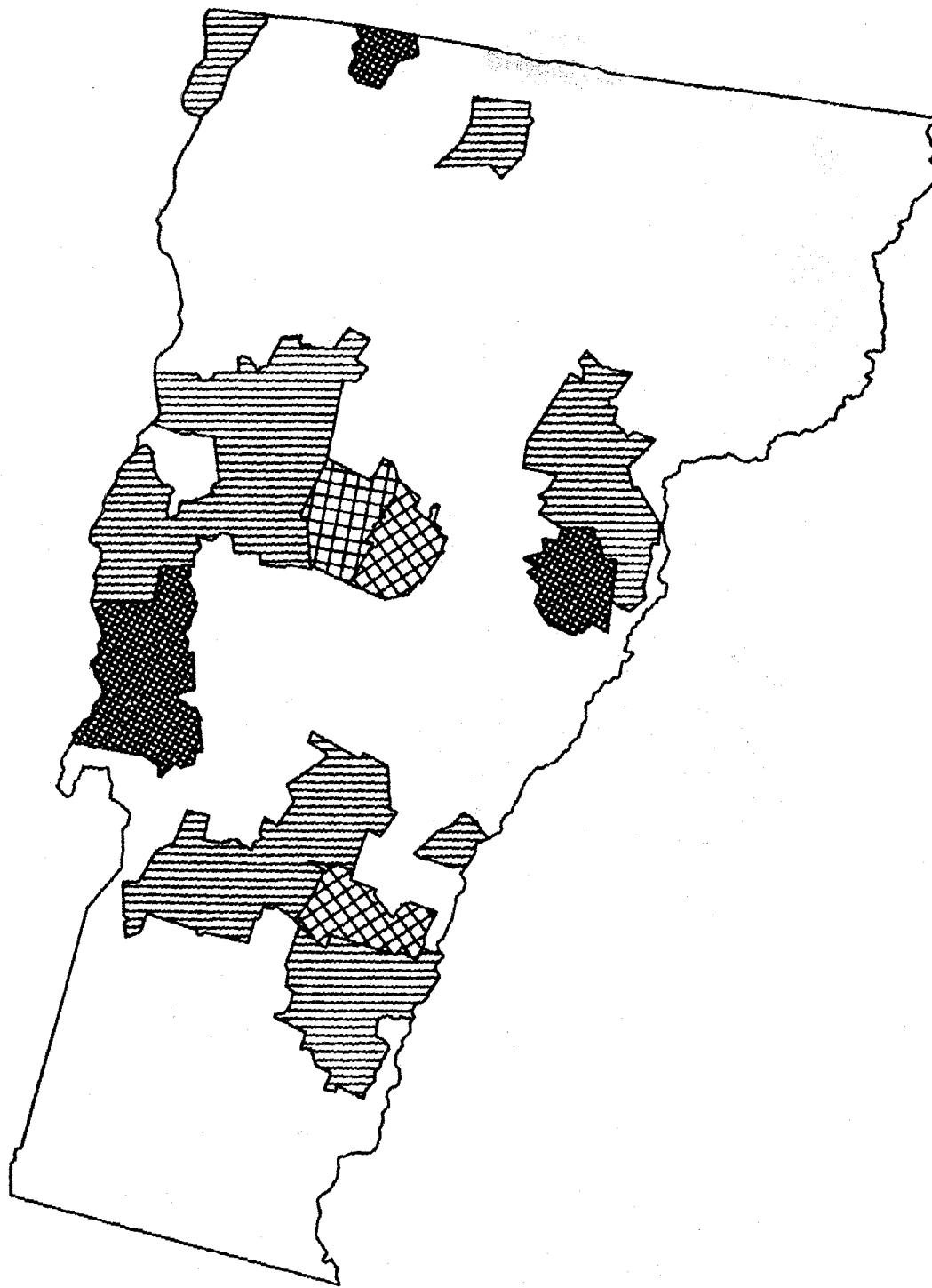


FIGURE 45

VIRGINIA

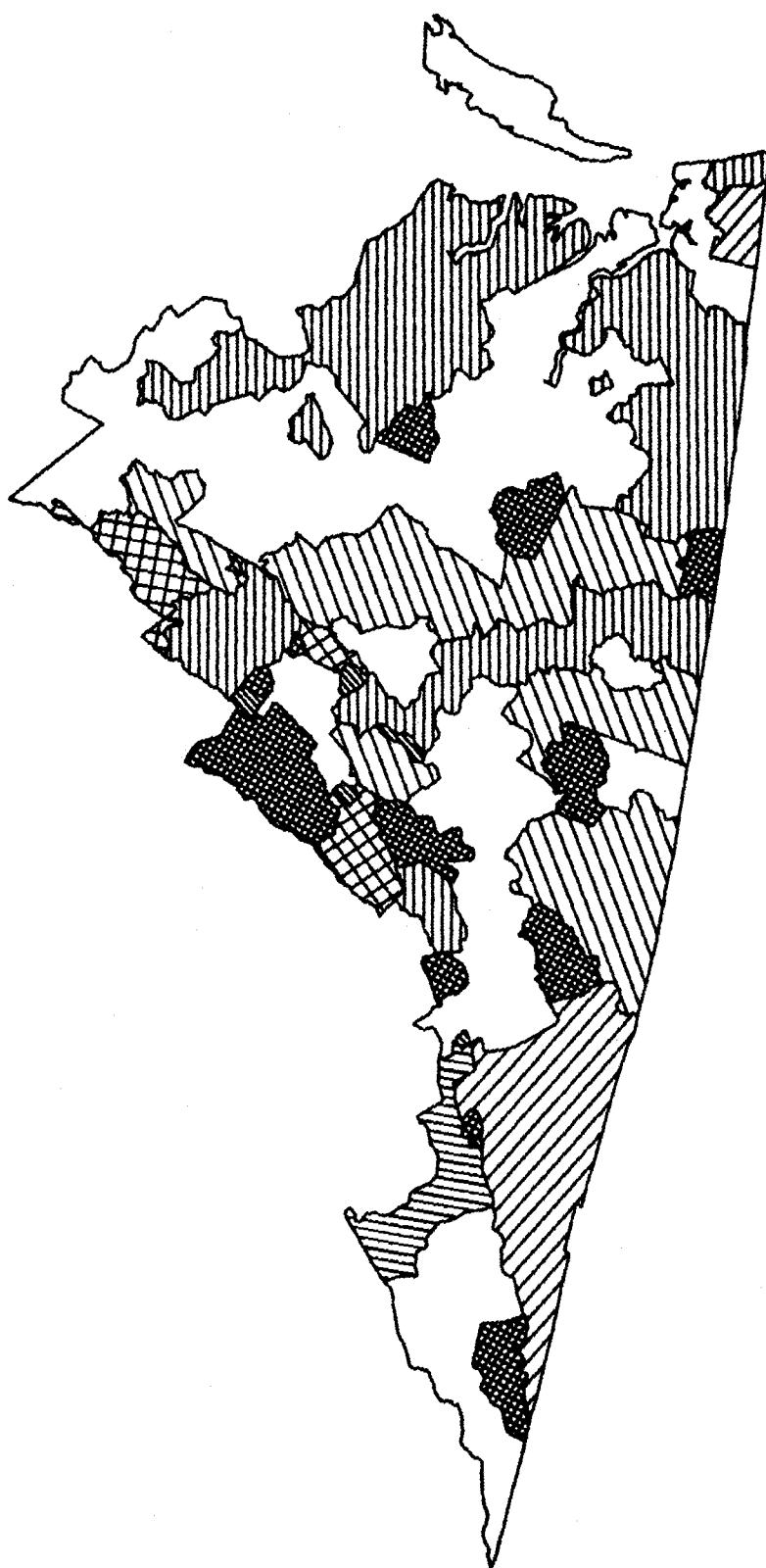


FIGURE 46

WASHINGTON

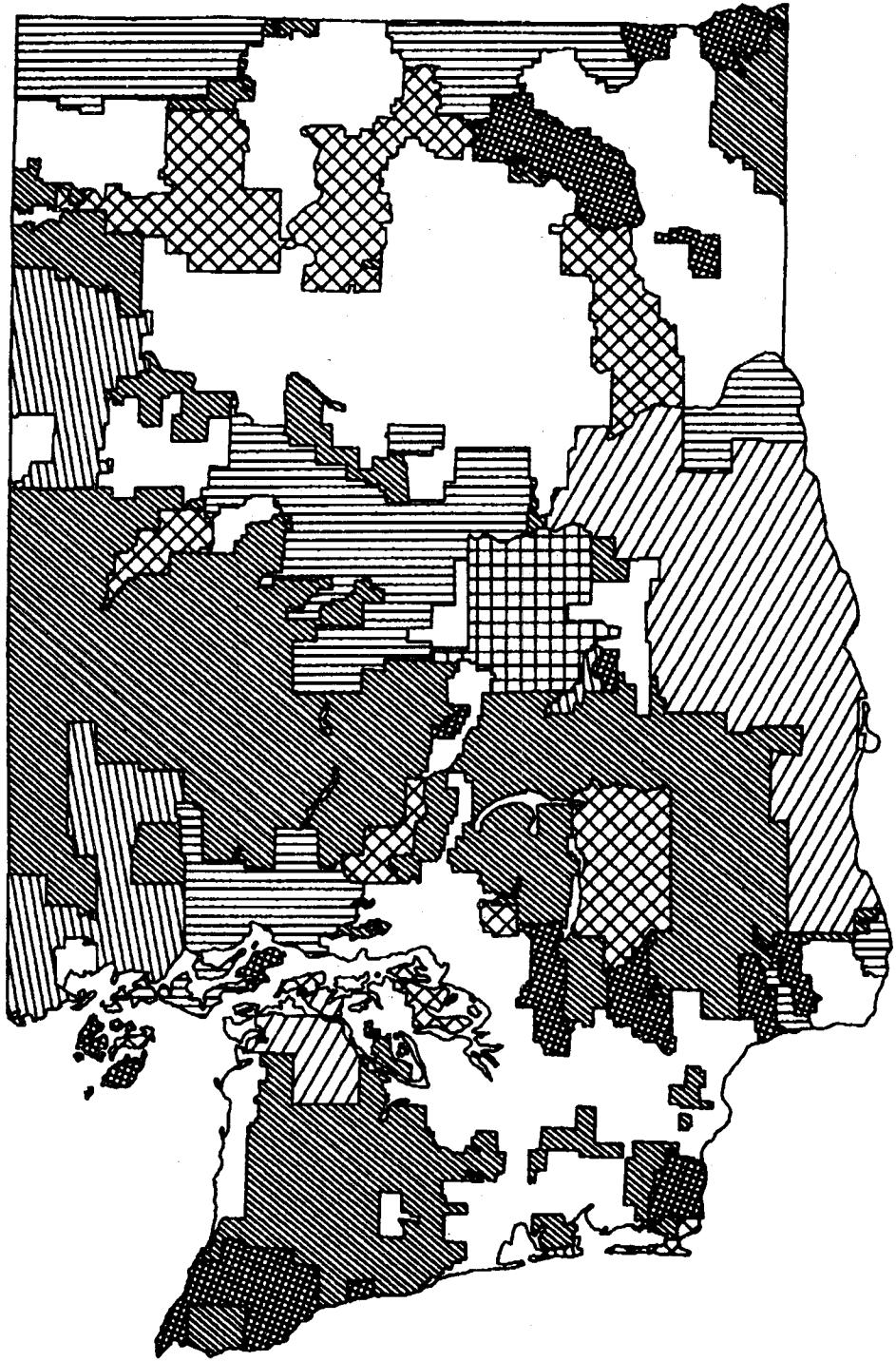


FIGURE 47

WEST VIRGINIA

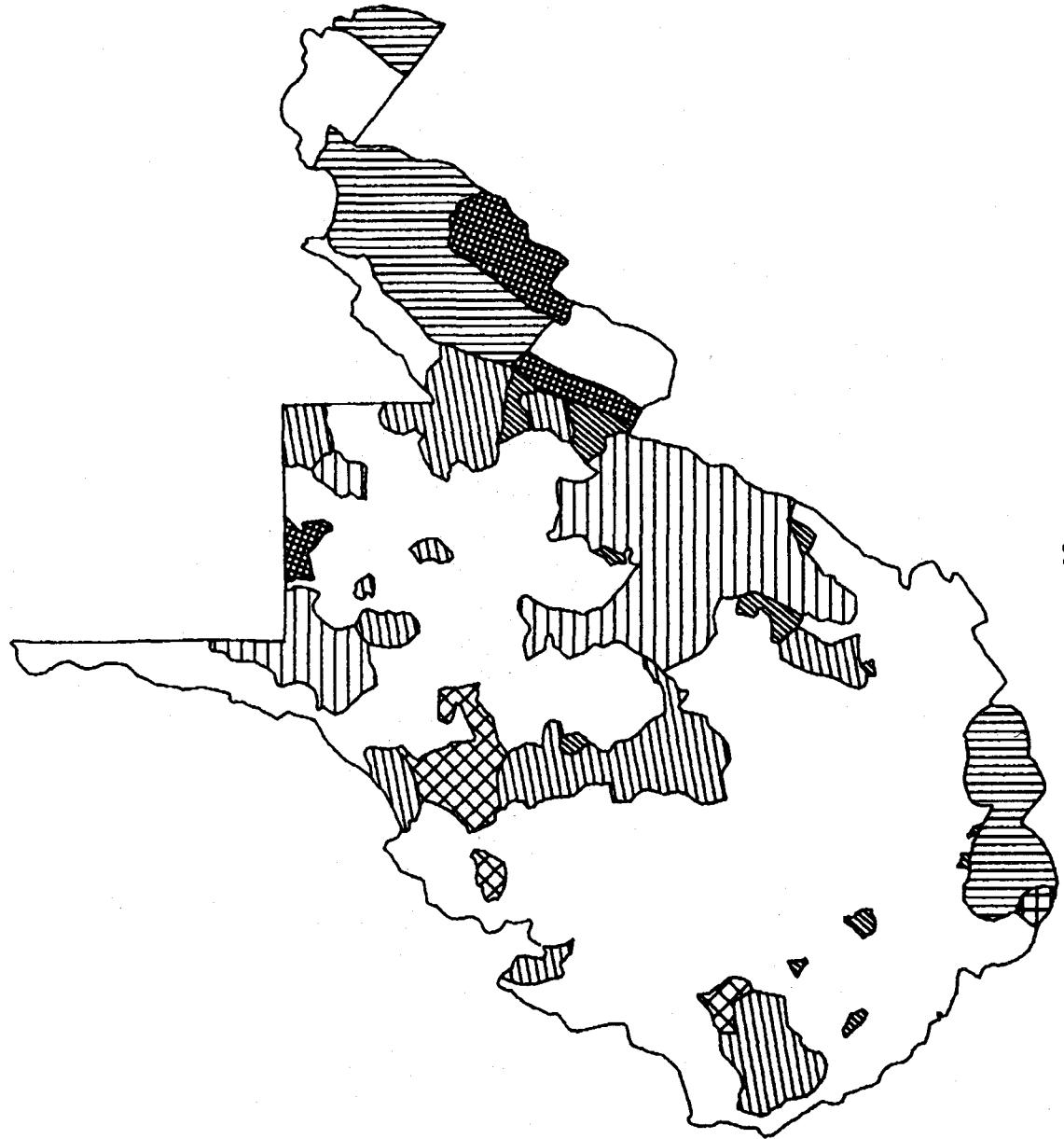


FIGURE 48

WISCONSIN

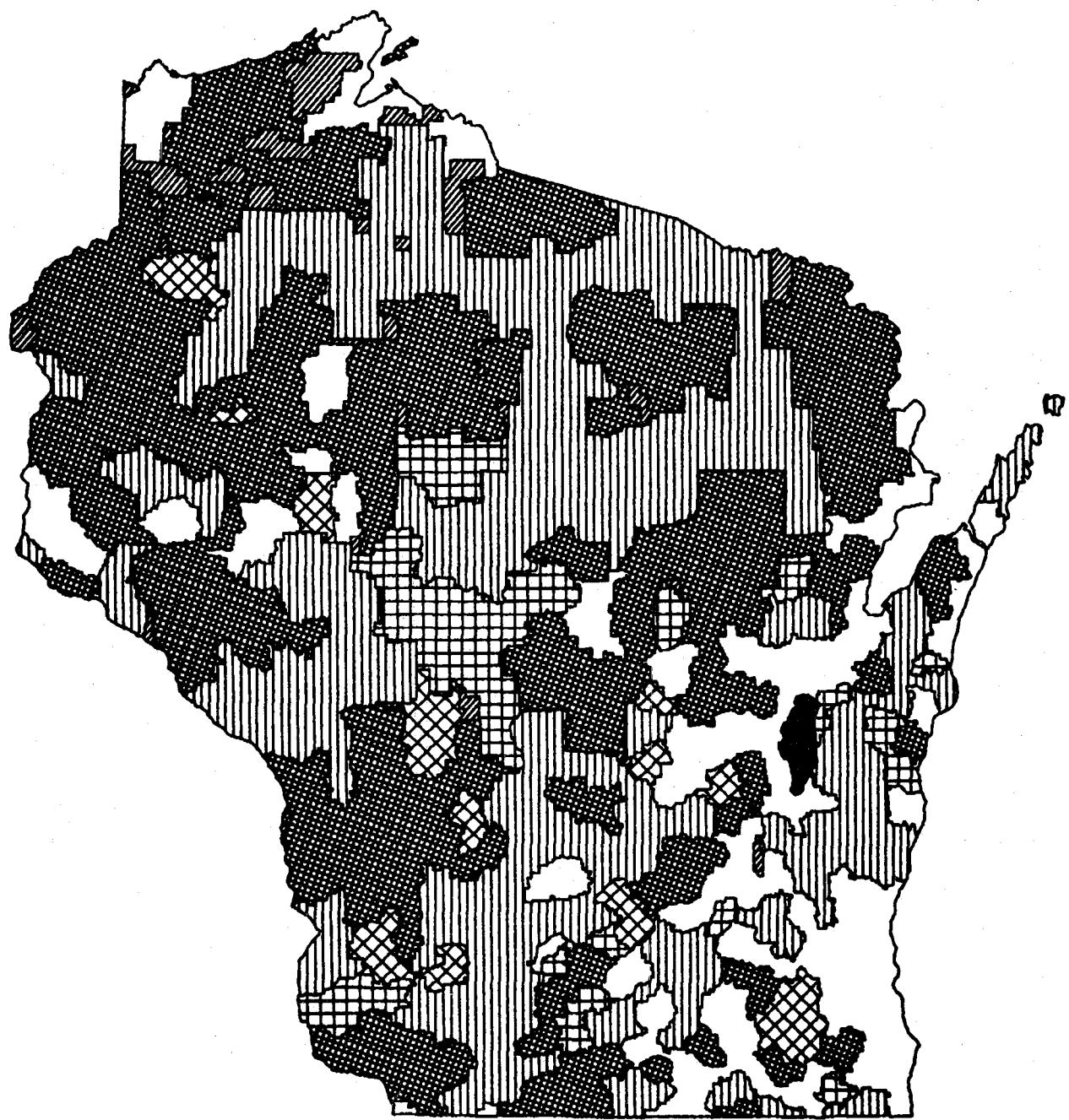


FIGURE 49

WYOMING

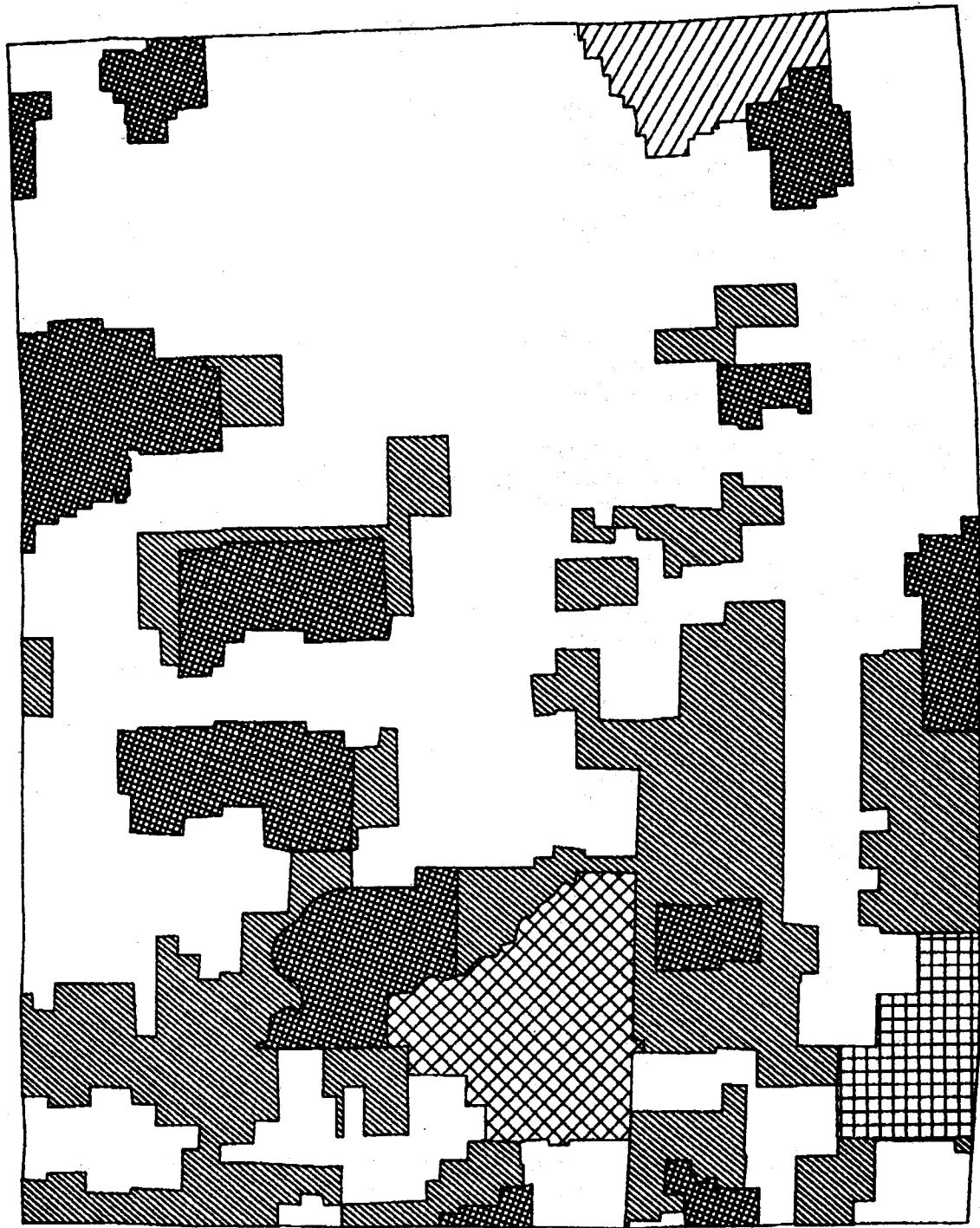


FIGURE 50

APPENDIX A:
**LISTING OF INDEPENDENT TELEPHONE COMPANIES IN EACH STATE THAT
ARE NOT A PART OF THE TOP FIVE HOLDING COMPANIES**

ALABAMA

Ardmore Tel. Co., Inc., Ardmore
Blountsville Tel. Co., Blountsville
Brindlee Mountain Tel. Co., Arab
Castleberry Tel. Co., Castleberry
Century Tel. Enterprises, Inc., Monroe, LA
Butler Tel. Co., Inc., Butler
*Farmers Tel. Co-op., Inc., Rainsville (17,537)
Floralia Tel. Co., Inc., Floralila
Goshen Tel. Co., Goshen
Gra-Ceba Tel. Total Communications, Ashford
*Gulf Tel. Co., Foley (19,091)
Hayneville Tel. Co., Hayneville
Hopper Tel. Co., Altoona
Interstate Tel. Co., Westpoint, GA
Mid-South Tel. Co., Inc., Baton Rouge, LA
Lamar County Tel. Co., Millport
Millry Tel. Co., Millry
Mississippi Tel. Corp., Leakesville, MS
Fruitdale Tel. Co., Inc., Fruitdale
Mon-Cre Tel. Co-op. Inc., Ramer
Monroeville Tel. Co., Monroeville
Moundville Tel. Co., Inc., Moundville
New Hope Tel. Co-op., New Hope
Oakman Tel. Co., Inc., Oakman
Oneonta Tel. Co., Inc., Oneonta
Pine Belt Tel. Co., Inc., Arlington
Ragland Tel. Co., Ragland
Roanoke Tel. Co., Roanoke
Southland Tel. Co., Atmore
Telephone and Data Systems, Inc., Chicago, IL
Peoples Tel. Co., Inc., Leesburg
Telephone Electronics Corporation, Bay Springs, MS
Grove Hill Tel. Corp., Grove Hill
National Telephone Co. of Alabama, Inc., Cherokee
Tri-County Tel. Co., Everton
Union Springs, Tel. Co., Inc., Union Springs

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

ALASKA

Alaska Power & Telephone Co.
National Utilities Inc., Skagway
*Anchorage Telephone Utility, Anchorage (144,563)
Bettles Tel. Co., Inc., Bettles
Bristol Bay Tel. Communications Co-op., Inc., Naknek
Bush Tel. Inc., Aniak
Circle Tel., Circle
Copper Valley Tel. Co-op., Valdez
Cordova Public Utilities, Cordova
*Fairbanks Municipal Utilities Systems, Fairbanks (35,128)
GAB Telecommunications Co., Inc., Girdwood
Great Land Tel. Anchorage
Interior Tel. Co., Anchorage
Ketchikan Public Utilities Co., Ketchikan
Manley Utility Co., Manley Hot Springs
Matanuska Tel. Assn., Inc., Palmer
Mukluk Tel. Co., Teller
Nushagak Tel. Co-op., Inc., Dillingham
OTZ Tel. Co-op., Inc., Kotzebue
Summit Tel., Summit
Telephone Utilities, Inc., Portland, OR
Sitka Tel. Co., Sitka
Telephone Utilities of Alaska, Inc., Ft. Wainwright
United Utilities, Inc., Anchorage
Whittier Tel. Co., Anchorage
Yukon Tel. Co., Tanana

ARIZONA

Arizona Tel. Co., Phoenix
*Citizens Utilities Co., Stamford, CT (37,828)
Citizens Utilities Co. & Citizens Utilities Rural Co., Kingman
*Great Southwest Tel. Corp., Grandview, TX (13,376)
Navajo Communications Co., Inc., Window Rock
Rio Virgin Tel. Co., Mesquite, NV
South Central Utah Tel. Assn., Inc., Escalante, UT
Southwestern Tel. Co., Salome
Universal Tel., Inc., Milwaukee, WI
Universal Tel. Co., of Arizona, Keams Canyon
Valley Tel. Co-op., Inc., Willcox

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

ARKANSAS

*Allied Tel. Co., Inc., Little Rock (91,225)

Allied Tel. Co., of Arkansas, Inc., Little Rock
Allied Utilities Corp., Crossett
Boone County Tel. Co., Harrison
Doniphan Tel. Co., Doniphan, MO
White River Tel. Co., Elkins
Wickes Tel. Co., Inc., Wickes

Arkansas Tel. Co., Inc., Clinton

Central Arkansas Tel. Co-op. Inc., Donaldson

*Century Tel. Enterprises, Monroe, LA (34,148)

Liberty Tel. & Comm., Inc., Hardy
Liberty Tel. Co., Calico Rock
Mountain Home Tel. Co., Inc., Mountain Home
Union Tel. Co., Plain Dealing, LA

Cleveland County Tel. Co., Inc., Rison

Decatur Tel. Co., Inc., Decatur

Lavaca Tel. Exch., Lavaca

Madison County Tel. Co., Inc., Huntsville

Magazine Tel. Co., Magazine

Mountain View Tel. Co., Mountain View

Northern Arkansas Tel. Co., Flippin

Perco Tel. Co., Perryville

Prairie Grove Tel. Co., Prairie Grove

Redfield Tel. Co., Inc., Redfield

Rice Belt Tel. Co., Inc., Weiner

E. Ritter Tel. Co., Marked Tree

South Arkansas Tel. Co., Hampton

Southwest Arkansas Tel. Co-op., Inc., Texarkana

Walnut Hill Tel. Co., Lewisville

Yelcot Tel. Co., Mountain Home

Yell County Tel. Co., Inc., Danville

CALIFORNIA

Calaveras Tel. Co., Copperopolis

Calif-Pacific National Corp., Concord

Capay Valley Tel. Co., Guinda

*Citizens Utilities Co., Stamford, Conn. (63,275)

Citizens Utilities Co. of California, Redding

Dorris Tel. Co., Dorris

Ducor Tel. Co., Ducor

Evans Tel. Co., Patterson

Livingston Tel. Co., Livingston

*

Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

CALIFORNIA (cont.)

Foresthill Tel. Co., Inc., Foresthill
Happy Valley Tel. Co., Anderson
Hornitos Tel. Co., Hornitos
Kerman Tel. Co., Kerman
Pinnacles Tel. Co., Paicines
Ponderosa Tel. Co., O'Neals
*Roseville Tel. Co., Roseville (72,473)
Sierra Tel. Co., Inc., Oakhurst
Mariposa County Tel. Co., Inc., Oakhurst
Siskiyou Tel. Co., The, Fort Jones
Volcano Tel. Co., The, Pine Grove

COLORADO

Agate Mutual Tel. Co., Agate
Big Sandy Tel. Co., Simla
Bijou Tel. Co-op., Byers
Blanca Tel. System, Blanca
Columbine Tel. Co., Billings, MT
*Delta County Tel. Co., Paonia (8,017)
Eagle Valley Tel. Co., The, Eagle
*Eastern Slope Rural Tel. Assn. Inc., Hugo (5,345)
El Paso County Tel. Co., El Paso
Farmers Mutual Tel. Co., Pleasant View
Nucla-Naturita Tel. Co., Nucla
Nunn Tel. Co., Nunn
Peetz Co-op. Tel., Peetz
Phillips County Tel. Co., Holyoke
Pine Drive Tel. Co., Beulah
Pioneer Tel. Assn., Inc., Ulysses, KS
Plains Cooperative Tel. Assn., Inc., Joes
Rico Tel. Co., Rico
Roggen Tel. Co-op. Co., Roggen
Rye Tel. Co., Inc., Colorado City
S&T Tel. Co-op. Assn., Brewster, KS
Stoneham Co-op. Tel. Co., Stoneham
Strasburg Tel. Co., Strasburg
Sunflower Tel. Co., Inc., Dodge City, KS
Union Tel. Co., Mountainview, WY
Universal Tel. Inc., Milwaukee, WI
Universal Tel. Co. of Colorado, Pagosa Springs
Valley Tel. Co., Baggs, WY
Wiggins Tel. Assn., Wiggins
Willard Tel. Co., Willard

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

CONNECTICUT

*The Woodbury Tel. Co., Woodbury (20,684)

DELAWARE

No "other" independents

FLORIDA

*Gulf Tel. Co., Perry (8,602)
Florala Tel. Co., Florala, Al.
Indiantown Tel. Co., Indiantown
Northeast Florida Tel. Co., Inc., MacClenny
*St. Joseph Tel. & Telegraph Co., Port St. Joe (26,101)
Southland Tel. Co., Atmore, AL

GEORGIA

Alma Tel. Co., Inc., Alma
Blue Ridge Tel. Co., Blue Ridge
Brantley Tel. Co., Nahunta
Bulloch Tel. Co-op. Inc., Statesboro
Camden Tel. & Telegraph Co., Inc., St. Mary's
Chickamauga Tel. Corp., Chickamauga
Citizens Tel. Co., Inc., Leslie
*Coastal Utilities, Inc., Hinesville (17,782)
Darien Tel. Co., Darien
Ellijay Tel. Co., Ellijay
Fairmount Tel. Co., Inc., Fairmount
Georgia Tel. Corp., Blakely
Glenwood Tel. Co., Glenwood
Hart County Tel. Co., Hartwell
Hawkinsville Tel. Co., Hawkinsville
Interstate Tel. Co., West Point
 Valley Tel. Co., Inc., West Point
Nelson-Ball Ground Tel. Co, Nelson
Pembroke Tel. Co., Inc., Pembroke
Pineland Tel. Co-op. Inc., Metter
Planters Rural Tel. Co-op. Inc, Newington
Plant Tel. & Power Co., Inc., Tifton
Progressive Rural Tel. Co-op., Rentz
Public Service Tel. Co., Reynolds

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

GEORGIA (cont.)

Ringgold Tel. Co., Ringgold
St. Joseph Tel. And Telegraph Co., Port St. Joe, FL
*Standard Tel. Co., Cornelia (37,956)
Statesboro Tel. Co., Statesboro
Trenton Tel. Co., Trenton
Utelwico Inc., The, Talbotton
Walker County Tel. Co., LaFayette
Waverly Hall Tel. Co., Waverly Hall
Wilkes Tel. & Electric Co., Washington
Wilkinson County Tel. Co., Irwinton

HAWAII

No "other" independents

IDAHO

Albion Tel. Co., Inc., Albion
Cambridge Tel. Co., Inc., Cambridge
Custer Tel. Co-op., Challis
Farmers Mutual Tel. Co., Fruitland
Filer Mutual Tel. Co., Filer
Inland Tel. Co., Uniontown, WA
*Century Tel. Enterprises, Inc., Monroe, LA (5,525)
 Lemhi Tel. Co., Salmon
Midvale Tel. Exch., Midvale
Mud Lake Tel. Co-op. Assn., Dubois
Potlatch Tel. Co., Kendrick
*Project Mutual Tel. Co-op. Assn., Inc., Rupert (11,556)
Rockland Tel. Co., Rockland
Rural Tel. Co., Three Creek
Silver Star Tel. Co., Inc., Freedom, WY
Telephone and Data Systems, Inc., Chicago, IL
 Troy Tel. Co., Inc., Troy
Telephone Utilities, Ilwaco, WA
 Gem State Utilities Corp., Grandview

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

ILLINOIS

Adams Tel. Co-op., Golden
Alhambra-Grantfork Tel. Co., Alhambra
Bergen Tel. Co., Sharon, WI
Cambridge Tel. Co., Geneseo
Cass Tel. Co., Virginia
Chandlerville Tel. Co., Chandlerville
C-R Tel. Co., Ransom
Clarksville Mutual Tel. Co., Clarksville
Crossville Tel. Co., Crossville
Depue Tel. Co., Depue
Egyptian Tel. Co-op. Assn., Steeleville
El Paso Tel. Co., El Paso
Equality Tel. Co., Inc., Equality
Flat Rock Mutual Tel. Co., Flat Rock
Geneseo Tel. Co., Geneseo
Glasford Tel. Co., Glasford
Grafton Tel. Co., Grafton
Grandview Mutual Tel., Grandview
Gridley Tel. Co., Gridley
Hamilton County Tel. Co-op., Dahlgren
Hardin County Tel. Co., Rosiclare
*Harrisonville Tel. Co., Waterloo (17,990)
Henry County Tel. Co., Geneseo
Home Tel. Co., St. Jacob
*Illinois Consolidated Tel. Co., Mattoon (126,468)
Inland Tel. Co., Champaign
Kinsman Mutual Tel. Co., Kinsman
LaHarpe Tel. Co., Inc., LaHarpe
Lakeside Tel. Co., Champaign
Leaf River Valley Tel. Co., Leaf River
Leonore Mutual Tel. Co., Leonore
McDonough Tel. Co-op., Colchester
McNabb Tel. Co., McNabb
Madison Tel. Co., Hamel
Marseilles Tel. Co., Marseilles
Metamora Tel. Co., Metamora
Mid Century Tel. Co-op., Inc., Canton
Midland Tel. Co., Champaign
Montrose Mutual Tel. Co. Inc., Dietrich
Moultrie Independent Tel. Co., Lovington
Mt. Pulaski Tel. & Electric Co., Lincoln
New Windsor Tel. Co., New Windsor
Odin Tel. Exch., Odin

*

Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

ILLINOIS (cont.)

Oneida Tel. Exch., Oneida
Orion Tel. Exch., Orion
Prairie Tel. Co., Champaign
Reynolds Tel. Co., Inc., Reynolds
Schuyler Tel. Co., Rushville
Sharon Tel. Co., Sharon, WI
Timewell Tel. Exch., Timewell
Tonica Tel. Co., Tonica
Viola Home Tel. Co., Viola
Wabash Tel. Co-op., Inc., Louisville
Woodhull Community Tel. Co., Woodhull
Yates City Tel. Co., Yates City

INDIANA

Bloomingdale Home Tel. Co., Inc., Bloomingdale
Camden Tel. Co., Inc., Camden
Century Tel. Enterprises, Inc., Monroe, LA
Central Indiana Tel. Co., Inc., Battle Ground
Elberfeld Tel. Co., Inc., Elberfeld
Citizens Tel. Co., Inc., Fairmount
Citizens Tel. Corp., Warren
Clay City Rural Tel. Co-op. Inc., Cloverdale
Craigville Tel. Corp., Craigville
Daviess-Martin City Rural Tel. Corp., Montgomery
Greetingsville Tel. Co., Inc., Frankfort
Hancock Rural Tel. Corp., Maxwell
Ligonier Tel. Co., Inc., Ligonier
Merchants & Farmers Tel. Co., Hillsboro
Monon Tel. Co., Inc., Monon
Mulberry Co-op. Tel. Co., Inc., Mulberry
New Lisbon Tel. Co., Inc., New Lisbon
New Paris Tel. Inc., New Paris
Northwestern Indiana Tel. Co., Inc., Hebron
Odin & Madison Township Tel. Co., Odin
Perry Spencer Rural Tel. Co-op. Inc., Tell City
Poseyville Tel. Co., Inc., Poseyville
*Princeton Tel. Co., Princeton (21,821)
Pulaski-White Rural Tel. Co-op. Inc., Star City
Rochester Tel. Co., Inc., Rochester
S & W Tel. Co., Inc., Sanborn
*Smithville Tel. Co., Inc., Ellettsville (27,598)
Southeast Indiana Rural Tel. Co-op., Inc., Dillsboro
Sulphur Springs Tel. Co., Sulphur Springs
Sunman Tel. Co., Inc., Sunman

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

INDIANA (cont.)

Swayzee Tel. Co., Swayzee
Sweetser Tel. Co., Inc., Sweetser
Telephone & Data Systems, Chicago, IL
 Communication Corp. of Indiana, Roachdale
 Elnora Tel. Co., Inc., Elnora
 Home Tel. Co. of Pittsboro, Inc., The, Pittsboro
 Home Tel. Co., Inc., Waldron
Thorntown Tel. Co., Inc., Thorntown
Tipton Tel. Co., Inc., Tipton
Tri-City Tel. Co., Inc., Wadesville
Wabash Mutual Tel. Co., Celina, OH
Wadesville Tel. Co., Inc., Wadesville
Washington City Rural Tel. Co-op., Inc., Pekin
West Point Tel. Co., Inc., West Point
Yeoman Tel. Co., Yeoman

IOWA

Ace Tel. Assn., Houston, MN
Amana Society Service Co., Amana
Andrew Tel. Co., Andrew
Arcadia Tel. Co-op., Arcadia
Atkins Co-op. Tel. Co., Atkins
Ayrshire Tel. Co., Ayrshire
Baldwin-Nashville Tel. Co., Baldwin
Barnes City Co-op. Tel. Co., Barnes City
Bernard Tel. Co., Inc., Bernard
Breda Tel. Corp., Breda
 Prairie Tel. Co., Inc., Breda
Brooklyn Mutual Tel. Co., Brooklyn
Burt Tel. Co., Burt
Butler-Bremer Tel. Co., Plainfield
Cascade Tel. Co., Cascade
Casey Mutual Tel. Co., Casey
Center Junction Independent Tel. Co., Center Junction
Central Scott Tel. Co., Eldridge
Chester Tel. Co., Chester
Citizens Mutual Tel. Co., The, Bloomfield
Clarence Tel. Co., Inc., Clarence
*Clear Lake Independent Tel. Co., Clear Lake (10,362)
 Ventura Tel. Co., Inc., Ventura
C-M-L Co-op. Tel. Assn., Meriden
Colo Tel. Co., Colo
Coon Creek Tel. Co., Blairstown

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

IOWA (cont.)

Coon Valley Co-op. Tel. Assn., Inc., Menlo
Coop. Tel. Co., Victor
Coop. Tel. Exchange of Stanhope and Kamrar, Inc., Stanhope
Corn Belt Tel. Co., Wall Lake
Cumberland Tel. Co., Cumberland
Danville Mutual Tel. Co., Danville
Deep River Mutual Tel. Co., Deep River
Defiance Tel. Co., Defiance
Dixon Tel. Co., Dixon
Dumont Tel. Co., Dumont
Dunkerton Mutual Tel. Co., Dunkerton
Earling Mutual Tel. Co., Earling
East Buchanan Tel. Co-op., Winthrop
Ellsworth Co-op. Tel. Assn., Ellsworth
Farmers' & Business Men's Tel. Co., Wheatland
Farmers Co-op. Tel. Co., Dysart
Farmers and Merchants Mutual Tel. Co., Wayland
Farmers Mutual Co-op. Tel. Co., Harlan
Farmers Mutual Co-op. Tel. Co., Inc., Moulton
Farmers Mutual Tel. Co., Jesup
Farmers Mutual Tel. Co., Nora Springs
Farmers Tel. Co., Riceville
Farmers Mutual Tel. Co., Shellsburg
Farmers Mutual Tel. Co., Stanton
Farmers Tel. Co., Batavia
Farmers Tel. Co., Essex
Fenton Co-op. Tel. Co., Fenton
Ft. Atkinson Tel. Co., Ft. Atkinson
Gilman Tel. Co., Gilman
Goldfield Tel. Co., Goldfield
Graettinger Co-op. Tel. Assn., Graettinger
Grand Mound Co-op. Tel. Assn., Grand Mound
Grand River Mutual Tel. Co., Grand River
*Grand River Mutual Tel. Corp., Princeton, MO (8,424)
Griswold Co-op. Tel. Co., Griswold
Hawkeye Tel. Co., Hawkeye
Heart of Iowa Tel. Co-op., Union
Hills Tel. Co., Inc., Hills, MN
Hospers Tel. Exch. Inc., Hospers
Hubbard Co-op. Tel. Assn., Hubbard
Huxley Co-op. Tel. Co., Huxley
Iamo Tel. Co., Coin
Interstate "35" Tel. Co., Truro
Southwest Tel. Exchange, Inc., Emerson

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

IOWA (cont.)

Jefferson Tel. Co., Jefferson
Jordan Soldier Valley Tel. Co-op., Soldier
Kalona Co-op. Tel. Co., Inc., Kalona
Kellogg Co-op. Tel. Assn., Kellogg
Keystone Farmers Co-op. Tel. Co., Keystone
Lake Mills Tel. Co., Lake Mills
La Porte City Farmers Mutual Tel. Co., La Porte City
Laurel Tel. Co., Laurel
Lehigh Valley Co-op. Tel. Assn., Lehigh
Lone Rock Co-op. Tel. Co., Lone Rock
Lost Nation-Elwood Tel. Co., Lost Nation
Lynnville Community Tel. Co., Inc., Lynnville
McCausland Co-op. Tel. Assn., McCausland
Mabel Co-op. Tel. Co., Mabel, MN
Manilla Tel. Co., Manilla
Marne & Elk Horn Tel. Co., Elk Horn
Martelle Co-op. Tel. Assn., Martelle
Massena Tel. Co., Massena
Mechanicsville Tel. Co., Mechanicsville
Miles Co-op. Tel. Assn., Miles
Miller Tel. Co., Miller
Minburn Tel. Co., Minburn
Minerva Valley Tel. Co., Inc., Zearing
Modern Co-op. Tel. Co., South English-Webster
Montezuma Mutual Tel. Co., Montezuma
Morley Tel. Co., Inc., Morley
Mutual Tel. Co. of Mediapolis, Mediapolis
Mutual Tel. Co. of Morning Sun, Morning Sun
Northeast Iowa Tel. Co., Monona
North English Co-op. Tel. Co., North English
Northern Iowa Tel. Co., Sioux Center
 Mutual Tel. Co., Sioux Center
Northwest Iowa Tel. Co., Sergeant Bluff
Northwest Tel. Co-op. Assn., Havelock
Norway Rural Tel. Co., Kanawha
Ogden Tel. Co., Ogden
Olin Tel. Co., Inc., Olin
Onslow Co-op. Tel. Assn., Onslow
Oran Mutual Tel. Co., Oran
Palmer Mutual Tel. Co., Palmer
Palo Co-op. Tel. Assn., Palo
Panora Co-op. Tel. Assn., Inc., Panora
Peoples Tel. Co., Aurelia
Postville Tel. Co., Postville

IOWA (cont.)

Prairieburg Tel. Co., Inc., Prairieburg
Preston Tel. Co., Preston
Radcliffe Tel. Co., Inc., Radcliffe
Readlyn Tel. Co., Readlyn
Reasnор Mutual Tel. Assn., Reasnор
Ringsted Tel. Co., Ringsted
Rockwell Co-op. Tel. Assn., Rockwell
Royal Tel. Co., Royal
Ruthven Tel. Co., Ruthven
Sac Co. Mutual Tel. Co., Odebolt
Schaller Tel. Co., Schaller
Scranton Tel. Co., Scranton
Searsboro Tel. Co., Searsboro
Sharon Tel. Co., Hills
Shell Rock Tel. Co., Shell Rock
South Slope Co-op. Tel. Co., Inc., Norway
Springville Co-op. Tel. Assn., Inc., Springville
Stratford Mutual Tel. Co., Stratford
Sully Tel. Assn., Sully
Superior Tel. Co-op., Superior
Swisher Tel. Co., Swisher
Templeton Tel. Co., Templeton
Terril Tel. Co., Terril
Titonka Tel. Co., Titonka
United Farmers Tel. Co., Everly
Van Buren Tel. Co., Keosauqua
Van Horne Co-op. Tel. Co., Van Horne
Villisaca Farmers Tel. Co., Villisaca
Wallingford Tel. Co-op., Wallingford
Walnut Tel. Co., Walnut
Webb-Dickens Tel. Corp., Webb
Webster-Calhoun Co-op. Tel. Assn., Gowrie
North Central Tel. Co., Badger
Wellman Co-op. Tel. Assn., Wellman
West Branch Tel. Co., West Branch
West Iowa Tel. Co., Remsen
West Liberty Tel. Co., West Liberty
Western Iowa Tel. Assn., Lawton
Westside Independent Tel. Co., Westside
Wilton Tel. Co., Wilton
Winnebago Co-op. Tel. Assn., Lake Mills
Woodward Mutual Tel. Co., Woodward
Woolstock Mutual Tel. Assn., Woolstock
Wyoming Mutual Tel. Co., Wyoming

KANSAS

Assaria Tel. Exch. Inc., Assaria
Benkelman Tel. Co., Inc., Benkelman, NE
Bison Tel. Co., Inc., Bison
Blue Valley Tel. Co., Inc., Home
Columbus Tel. Co., Columbus
Council Grove Tel. Co., Council Grove
*Craw-Kan. Tel. Co-op. Assn., Inc., Girard (14,591)
Cunningham Tel. Co., Inc., Glen Elder
Diller Tel. Co., Diller, NE
Elkhart Tel. Co., Inc., Elkhart
Golden Belt Tel. Assn., Inc., Rush Center
Burdett Tel. Co., Inc., Rush Center
Gorham Tel. Co., Inc., Gorham
H & B Communications Inc., Holyrood
Hartman Tel. Exchange, Inc., Danbury, NE
Haviland Tel. Co., Inc., Haviland
Home Tel. Co., Inc., Galva
J.B.N. Tel. Co., Inc., Wetmore
Jetmore Tel. Co., Inc., Dodge City
KanOkla Tel. Assn., Inc., Anthony
Kansas State Tel. Co., Baxter Springs
LaHarpe Tel. Co., LaHarpe
Lincoln Tel. Co., Lincoln, NE
Linn Rural Tel. Co., Linn
Madison Tel. Co., Inc., Madison
Mo.-Kan. Dial Co. Inc., Louisburg
Moundridge Tel. Co., Moundridge
Mutual Tel. Co., Little River
Peoples Mutual Tel. Co., LaCygne
*Pioneer Tel. Assn., Inc., Ulysses (20,279)
Pleasanton Tel. Co., Pleasanton
Rainbow Tel. Co-op. Assn., Inc., Everest
Rural Tel. Service Co., Inc., Lenora
S & A Tel. Co., Inc., Allen-Admire
S & T Tel. Co-op. Assn., Brewster
Salemsborg Farmers Tel. Co., Smolan
South Central Tel. Assn., Inc., Medicine Lodge
Southern Kansas Tel. Co., Inc., Clearwater
Sunflower Tel. Co., Inc., Dodge City
Totah Tel. Co. Inc., Ochelata, OK
Tri-County Tel. Assn. Inc., Council Grove
Twin Valley Tel. Inc., Miltonvale
United Tel. Assn. Inc., Dodge City
Wamego Tel. Co., Inc., Wamego
Wheat State Tel. Co., Inc., Udall
Wilson Tel. Co., Inc., Wilson
Zenda Tel. Co., Inc., Zenda

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

KENTUCKY

Allied Tel. Co., Little Rock, AR
Echo Tel. Co., Inc., Shepherdsville
Ballard Rural Tel. Co-op., Corp., La Center
*Brandenburg Tel. Co., Inc., Brandenburg (21,819)
Century Tel. Enterprises, Inc., Monroe, LA
 Uniontown Tel. Co., Inc., Uniontown
Duo County Tel. Co-op. Inc., Jamestown
Foothills Rural Tel. Co-op., Corp., Inc., Staffordsville
Harold Tel. Co., Inc., Harold
Highland Tel. Co-op. Inc., Sunbright, TN
Leslie County Tel. Co., Inc., Hyden
Lewisport Tel. Co., Inc., Lewisport
Logan Tel. Co-op. Inc., Auburn
Mountain Rural Tel. Co-op., Corp., Inc., West Liberty
North Central Tel. Co-op. Inc., Lafayette, TN
Peoples Rural Tel. Co-op., Corp., Inc., McKee
Salem Tel. Co., Salem
*So. Cent. Rural Tel. Co-op., Inc., Glasgow (25,211)
Thacker-Grigsby Tel. Co., Inc., Hindman
West Kentucky Rural Tel. Co-op., Corp., Inc., Mayfield

LOUISIANA

C.A.I.L. Enterprises, Baton Rouge
 Star Tel. Co., Inc., Maringouin
Cameron Tel. Co., Sulphur
Campti-Pleasant Hill Tel. Co., Pleasant Hill
*Century Tel. Enterprises Inc., Monroe (100,465)
 Athens Tel. Co., Inc., Athens
 Caddoan Tel. Co., Plain Dealing
 Central Louisiana Tel. Co., Inc., Jena
 Century Tel. Co., Inc., Greensburg
 Coastal Tel. & Electronics Corp., Breaux Bridge
 Evangeline Tel. Co., Welsh
 Louisiana Western Tel. Co., Welsh
 Northwest Louisiana Tel. Co., Inc., Cotton Valley
 Plain Dealing Tel. Co., Inc., Plain Dealing
 Union Tel. Co., Plain Dealing
 United Tel. Co. of Louisiana, Inc., Marion
Chatham Tel. Co., Chatham
 Elizabeth Tel. Co., Inc., Elizabeth
Data Comm., Inc.
 Offshore Tel. Co., New Orleans
Delcambre Tel. Co., Inc., Delcambre

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

LOUISIANA (cont.)

Delcambre Tel. Co., Inc., Delcambre
*East Ascension Tel. Co., Inc., Gonzales (22,891)
Kaplan Tel. Co., Kaplan
Lafourche Tel. Co., Inc., Larose
Northeast Louisiana, Tel. Co., Inc., Collinston
Reserve Tel. Co., Reserve
Ringgold Tel. Co., Inc., Ringgold

MAINE

Bryant Pond Tel. Co., Bryant Pond
China Tel. Co., South China
Cobosseecontee Tel. Co., West Gardiner
*Community Service Tel. Co., Winthrop (9,268)
Hampden Tel. Co., Hampden
Island Tel. Co., The, Frenchboro
Lincolnville Tel. Co., Lincolnville
Oxford Co. Tel. & Telegraph Co., Buckfield
Pine Tree Tel. & Telegraph Co., The, Gray
Saco River Tel. & Telegraph Co., Bar Mills
Standish Tel. Co., Standish
*Telephone and Data Systems, Inc., Chicago, Ill. (15,141)
 Hartland & St. Albans Tel. Co., Hartland
 Somerset Tel. Co., North Anson
 Warren Tel. Co., Warren
 West Penobscot Tel. & Telegraph Co., Corinna
Union River Tel. Co., Aurora
Unity Tel. Co., Unity

MARYLAND**

*Armstrong Utilities, Inc., Butler, PA (4,811)
 Armstrong Tel. Co., Rising Sun

MASSACHUSETTS

Elizabeth Islands Tel. Co., Naushon Islands
*Granby Tel. & Telegraph Co., Granby (2,796)
*Richmond Tel. Co., Richmond (1,028)
Taconic Tel. Corp., Chatham, NY

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** Does not include Washington, D.C. (see end of list).

MICHIGAN

Alba Tel. Co., Pigeon
Allendale Tel. Co., Allendale
Banfield Tel. Co., Banfield
Baraga Tel. Co., Baraga
Barry County Tel. Co., Delton
Blanchard Tel. Assn., Blanchard
Bloomingdale Tel. Co., Bloomingdale
Carr Tel. Co., Branch
*CC&S Systems Inc., Brooklyn (20,770)
 Camden Tel. Co., Camden
 Southern Tel. Co., Brooklyn
*Century Tel. Enterprises, Inc., Chesaning (26,487)
 Au Gres Tel. Co., Chesaning
 Central Tel. Co., Chesaning
 Hadley Tel. Co., Hadley
Chatham Tel. Co., Chatham
Chippewa County Tel. Co., Inc., Brimley
Climax Tel. Co., Climax
Concord Tel. Co., Inc., Concord
Deerfield Farmers Tel. Co., Deerfield
Drenthe Tel. Co., Zeeland
Drummond Island Tel. Co., Carney
Farmers Mutual Tel. Co. of Chapin, Elsie
Island Tel. Co., Beaver Island
Kaleva Tel. Co., Kaleva
Kingsley Tel. Co., Kingsley
Lennon Tel. Co., Lennon
Midway Tel. Co., Watton
Munising Tel. Co., Munising
National Communications Systems, Inc., Chesaning
 Mesick Tel. Co., Mesick
 Northern Tel. Co., Mesick
Ogden Mutual Tel. Co., Blissfield
Ontonagon County Tel. Co., Ontonagon
Peninsula Tel. Co., Old Mission
Pigeon Tel. Co., Pigeon
Sand Creek Tel. Co., Sand Creek
Shiawasee Tel. Co., Perry
Springport Tel. Co., Springport
Telephone & Data Systems, Inc., Chicago, IL
 Augusta Tel. Co., Augusta
 Clayton Tel. Co., Clayton
 Hickory Tel. Co., Augusta
Twining Tel. Co., Twining

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MICHIGAN (cont.)

Upper Peninsula Tel. Co., Carney
Waldron Tel. Co., Waldron
Westphalia Tel. Co., Westphalia
Winn Tel. Co., Winn
Wolverine Tel. Co., Millington

MINNESOTA

Ace Tel. Assn., Houston
Albany Mutual Tel. Co., Albany
Arvig Tel. Co., Pequot Lakes
Barnesville Municipal Tel. Co., Barnesville
Benton Cooperative Tel. Co., Rice
Blackduck Tel. Co., Blackduck
Blue Earth Valley Tel. Co., Blue Earth
Bricelyn Mut. Tel. Co., Bricelyn
Bridgewater Tel. Co., Monticello
Callaway Tel. Co., Callaway
Cannon Valley Tel. Co., Morristown
Chester Tel. Co., Chester, IA
Clara City Tel. Co., Clara City
Clements Tel. Co., Clements
Communications Systems, Inc., Hector
Arrowhead Communications Corp., Hector
Eagle Valley Tel. Co., Clarissa
Pine Island Tel. Co., Pine Island
Consolidated Tel. Co., Brainerd
Crosslake Tel. Co., Crosslake
Danube Tel. Co., Danube
Deer River Tel. Co., Deer River
Delavan Tel. Co., Delavan
Deuel Tel. Co-op. Assn., Clear Lake, SD
Dunnell Tel. Co., Inc., Dunnell
Easton Tel. Co., Easton
East Otter Tail Tel. Co., Perham
Eckles Tel. Co., New Prague
Emily Tel. System, Emily
Farmers Mutual Tel. Co., Bellingham
Federated Tel. Co-op., Chokio
Felton Tel. Exch. Inc., Felton
*Garden Valley Tel. Co., Erskine (18,178)
Gardonville Co-op. Tel. Assn., Brandon
Granada Tel. Co., Granada
Halstad Tel. Co., Halstad

*

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MINNESOTA (cont.)

Hancock Tel. Co., Hancock
Harmony Tel. Co., Harmony
Hohman Tel. Co., Pelican Rapids
 Lake Region Tel. Co., Pelican Rapids
 Pelican Tel. Co., Pelican Rapids
Home Tel. Co., Grand Meadow
Hutchinson Tel. Co., Hutchinson
Johnson Tel. Co., Remer
Kasson & Mantorville Tel. Co., Kasson
K M P Tel. Co., Kerkhoven
Lakedale Tel. Co., Annandale
Larson Utilities, Inc., Franklin
 Minnesota Valley Tel. Co., Franklin
Lismore Co-op. Tel. Co., Lismore
Lonsdale Tel. Co., Lonsdale
Lowry Tel. Co. Inc., Lowry
Mabel Co-op. Tel. Co., Mabel
Madelia Tel. Co., Madelia
Manchester-Hartland Tel. Co., Manchester
*Mankato Citizens Tel. Co., Mankato (46,255)
 Mid-Commun. Inc., Mankato
Mazeppa Tel. Co., Mazeppa
Melrose Tel. Co., Melrose
Midwest Tel. Co., Parkers Prairie
Minnesota Lake Tel. Co., Minnesota Lake
New Ulm Rural Tel. Co., New Ulm
Northern Tel. Co., Wawina
Northland Tel. Co. Inc., Hill City
Ollig Utilities Co., Inc., Ada
 Hills Tel. Co., Inc., Hills
 Norman County Tel. Co., Ada
 Sioux Valley Tel. Co., Dell Rapids, SD
 Sleepy Eye Tel. Co., Sleepy Eye
Osakis Tel. Co., Osakis
Park Region Mutual Tel. Co., Underwood
Paul Bunyan Rural Tel. Co-op., Bemidji
Peoples Tel. Co., Big Fork
Polar Rural Tel. Corp., Park River, ND
Red River Rural Tel. Assn., Abercrombie, ND
Redwood County Tel. Co., Redwood Falls
Rock Dell Tel. Co., Kasson
Rothsay Tel. Co., Inc., Rothsay
Runestone Tel. Assn., Hoffman
Sacred Heart Tel. Co., Clara City
 Starbuck Tel. Co., Clara City
Scott-Rice Tel. Co., Prior Lake

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MINNESOTA (cont.)

Sherburne County Rural Tel. Co., Big Lake
Splitrock Tel. Co-op, Inc., Garretson, SD
Spring Grove Co-op. Tel. Co., Spring Grove
Telephone and Data Systems, Inc., Madison, WI
Mid-State Tel. Co., Spicer
Twin Valley Ulen Tel. Co., Twin Valley
Universal Tel. Inc., Milwaukee, WI
Solon Springs Tel. Co. Inc., Minong, WI
Upsala Co-op. Tel. Co., Upsala
Valley Tel. Co., Browns Valley
West Central Tel. Assn., Sebeka
Western Tel. Co., Springfield
Wikstrom Tel. Co. Inc., Karlstad
Winnebago Co-op. Tel. Assn., Lake Mills, IA
Winsted Tel. Co., Winsted
Winthrop Tel. Co., Winthrop
Wolverton Tel. Co., Wolverton
Woodstock Tel. Co., Ruthton
Wykoff Tel. Co., Grand Meadow
Zumbrota Tel. Co., Zumbrota

MISSISSIPPI

Ackerman Tel. Co., Inc., Ackerman
Bruce Tel. Co., Bruce
*Century Tel. Enterprises, Inc., Marion, LA (10,822)
 Home Tel. Co., Olive Branch
 Mississippi Tel. & Communications, Inc., Mound Bayou
 Myrtle Tel. Co., Inc., Myrtle
Decatur Tel. Co., Decatur
Delta Tel. Co., Inc., Louise
Franklin Tel. Co., Inc., Meadville
Fulton Tel. Co., Inc., Fulton
Georgetown Tel. Co., Georgetown
Glen Allan Tel. Co., Glen Allan
Hughes Tel. Co., Inc., Bailey
Mid-South Tel. Co., Inc., Guntown
Mississippi Tel. Corp., Leakesville
Sherwood Tel. Co., Merigold
Sledge Tel. Co., Sunflower
Smithville Tel. Co., Inc., Smithville
Telephone and Data Systems, Inc., Chicago, IL
 Calhoun City Tel. Co., Inc., Calhoun City
*Telephone Electronics Corp., Bay Springs (11,902)
 Bay Springs Tel. Co., Inc., Bay Springs
 Noxapater Tel. Co., Inc., Noxapater

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MISSOURI

*Allied Tel. Co., Little Rock, Ark. (34,249)
 Allied Tel. Co. of Mo., Inc., Dixon
 Doniphan Tel. Co., Doniphan
Alma Tel. Co., Alma
Century Tel. Enterprises, Inc., Hardy, AR
 Carter County Tel. Co., Van Buren
 Holway Tel. Co., Maitland
 Webster County Tel. Co., Marshfield
Chariton Valley Tel. Corp., Bucklin
Choctaw Tel. Co., Halltown
Citizens Tel. Co., Higginsville
Craw-Kan Tel. Co-op. Assn., Inc., Girard, KS
Eastern Missouri Tel. Co., Bowling Green
Ellington Tel. Co., Ellington
F & M Tel. Co., Farber
Fidelity Tel. Co., Sullivan
 Bourbeuse Tel. Co., Sullivan
Goodman Tel. Co., Goodman
Granby Tel. Co., Granby
Grand River Mutual Tel. Corp., Princeton
Green Hills Tel. Corp., Breckenridge
Iamo Tel. Co., Coin, IA
K L M Tel. Co., Rich Hill
Kingdom Tel. Co., Auxvasse
Lathrop Tel. Co., Lathrop
Le-Ru Tel. Co., Stella
Mark Twain Rural Tel. Co., Hurdland
McDonald County Tel. Co., Pineville
Mid-Missouri Tel. Co., Pilot Grove
Miller Tel. Co., Inc., Miller
*Missouri Tel. Co., Columbia (21,380)
 Mo-Kan Dial Co., Inc., Louisburg, KS
 New Florence Tel. Co., Inc., New Florence
 New London Tel. Co., New London
 Northeast Missouri Rural Tel. Co., Green City
 Orchard Farm Tel. Co., Orchard Farm
 Oregon Farmers Mutual Tel. Co., Oregon
 Peace Valley Tel. Co., Peace Valley
 Rock Port Tel. Co., Rock Port
 Seneca Tel. Co., Seneca
 Steelville Tel., Exch. Inc., Steelville
 Stoutland Tel. Co., Stoutland
 Wheeling Tel. Co., Wheeling

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MONTANA

Big Pine Rural Tel. Co., Great Falls
Blackfoot Tel. Co-op. Inc., Missoula
Century Tel. Enterprises, Inc., Monroe, LA
Lemhi Tel. Co., Salmon
Hot Springs Tel. Co., Hot Springs
InterBel Tel. Co-op. Inc., Eureka
Intermountain Tel. & Power Co., Billings
Lincoln Tel. Co., Lincoln
Mid-Rivers Tel. Co-op. Inc., Circle
Nemont Tel. Co-op., Inc., Scobey
Northern Tel. Co-op., Inc., Sunburst
Project Tel. Co., Inc., Worden
Range Tel. Co-op. Inc., Forsyth
Ronan Tel. System, Ronan
Southern Montana Tel. Co., Wisdom
*Telephone Utilities, Inc., Portland, OR (43,149)
Northwestern Tel. Systems, Inc., Kalispell
Three Rivers Tel. Co-op. Inc., Fairfield
*Triangle Tel. Co-op. Assn., Inc., Havre (12,449)
Valley Rural Tel. Co-op. Assn., Inc., Glasgow

NEBRASKA

Arapahoe Tel. Co., Arapahoe
Arthur Non-Stock Cooperative Tel. Assn., Arthur
Benkelman Tel. Co., Inc., Benkelman
Wauneta Tel. Co., Wauneta
Bingham Tel. Co., Bingham
Cambridge Tel. Co., Cambridge
Central Tel. and Utility Corp., Lincoln
Chisp's Tel. Co., Paxton
Clarks Tel. Co., Clarks
Consolidated Tel. Co., Lincoln
Cozad Tel. Co., Cozad
Craig Tel. Co., Craig
Curtis Tel. Co., Curtis
Dalton Tel. Co., Dalton
Diller Tel. Co., Diller
Elsie Mutual Tel. Co., Elsie
Eustis Tel. Exch., Inc., Eustis
Extension Tel. Co., White Clay
Funk Tel. Co., Inc., Funk
Glenwood Tel. Membership Corp., Blue Hill
Hamilton Tel. Co., Aurora

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NEBRASKA (cont.)

Hartington Tel. Co., Hartington
Hartman Tel. Exch., Inc., Danbury
Hemingford Co-op. Tel. Co., Hemingford
Henderson Tel. Co., Henderson
Hershey Co-op. Tel. Co., Hershey
Home Tel. Co., of Nebraska, Brady
Hooper Tel. Co., Hooper
HunTel Systems, Inc., Blair
 Arlington Tel. Co., Blair
 Blair Tel. Co., Blair
 Eastern Nebraska Tel. Co., Blair
 Rock County Tel. Co., Blair
K & M Tel. Co., Inc., Chambers
Keystone-Arthur Tel. Co., Keystone
*Lincoln Tel. & Telegraph Co., The, Lincoln (330,568)
Nebraska Central Tel. Co., Gibbon
Northeast Nebraska Tel. Co., Jackson
Panhandle Tel. Co., Dix
Petersburg Tel. Co., Petersburg
Pierce Tel. Co., Inc., Pierce
Plainview Tel. Co., Inc., Plainview
Rodeo Tel., Inc., Burwell
Sodtown Tel. Co., Ravenna
Southeast Nebraska Tel. Co., Falls City
Stanton Independent Tel. Co., Stanton
*UniTel of Nebraska, Blair (21,296)
 Central Nebraska Tel. Co., Blair
 Nebraska Tel. Co., Blair
 Northeastern Tel. Co., Blair
 Northern Tel. Co., Blair
 Union Tel. Co., Blair

NEVADA

*Calif-Pacific National Corp., Concord, CA (12,924)
*County of Churchill, State of Nevada (9,862)
 Churchill Co. Tel. & Telegraph System, Fallon
Filer Mutual Tel. Co., Filer, ID
Lincoln County Tel. Sys., Inc., Pioche
Moapa Valley Tel. Co., Overton
Nevada Tel. & Telegraph Co., Tonapah
Rio Virgin Tel. Co., Mesquite
Telephone Utilities, Ilwaco, WA
 Gem State Utilities Corp., Grand View, ID

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NEW HAMPSHIRE

Chichester Tel. Co., Chichester
Dixville Tel. Co., Dixville Notch
Dunbarton Tel. Co., Dunbarton
Granite State Tel. Co., South Weare
*Merrimack County Tel. Co., Contoocook (6,612)
Mountain Management Development Co., Bretton Woods
Bretton Woods Tel. Co., Bretton Woods
*Telephone & Data Systems, Inc., Chicago, IL (6,678)
Kearsarge Tel. Co., New London
Meriden Tel. Co., Meriden
Union Tel. Co., Farmington
Wilton Tel. Co., Wilton

NEW JERSEY

*Warwick Valley Tel. Co., Warwick, NY (6,856)

NEW MEXICO

Baca Valley Tel. Co., Inc., Des Moines
Corona Tel. Co., Corona
Dell Tel. Co-op., Inc., Dell City, TX
*E.N.M.R. Tel. Co-op., Clovis (4,849)
*Great Southwest Tel. Corp., Grandview, TX (5,345)
Navajo Communications Co., Inc., Window Rock, AZ
La Jicarita Rural Tel. Co-op. Assn., Mora
Leaco Rural Co-op., Inc., Lovington
Maxwell Tel. Exch., Maxwell
Panhandle Tel. Co-op., Inc., Guymon, OK
Penasco Valley Tel. Co-op., Inc., Artesia
Roosevelt County Rural Tel. Co-op., Inc., Portales
Universal Tel. Inc., Milwaukee, WI
Universal Tel. Co. of Southwest -- Pecos Dist.
Universal Tel. Co. of Southwest -- Zuni Dist.
Valley Tel. Corp. Inc., Willcox, AZ
Western New Mexico Tel. Co., Cliff
West Texas Rural Tel. Co-op., Hereford, TX

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NEW YORK

*Armstrong Utilities, Inc., Butler, PA
 Addison Home Tel. Co., Addison
AuSable Valley Tel. Co., Inc., Keeseeville
Berkshire Tel. Corp., Kinderhook-Valatie
Cassadaga Tel. Corp., Fredonia
Champlain Tel. Co., Champlain
Chautauqua & Erie Tel. Corp., Westfield
Chazy & Westport Tel. Corp., Westport
Citizens Tel. Co., Hammond
Crown Point Tel. Corp., Crown Point
Delhi Tel. Co., Delhi
Deposit Tel. Co., Inc., Deposit
Dunkirk & Fredonia Tel. Co., Fredonia
Empire Tel. Corp., Prattsburg
Fishers Island Tel. Corp., Fishers Island
Germantown Tel. Co., Inc., Germantown
Hancock Tel. Co., Hancock
Macomb Tel. Co., Macomb
Margaretville Tel. Co., Inc., Margaretville
Middleburgh Tel. Co., Middleburgh
Newport Tel. Co., Inc., Newport
Nicholville Tel. Co., Inc., Nicholville
Ogden Tel. Co., Spencerport
Oneida County Rural Tel. Co., Holland Patent
Oriskany Falls Tel. Corp., Oriskany Falls
Pattersonville Tel. Co., Rotterdam Junction
Port Byron Tel. Co., Port Byron
*Rochester Tel. Corp., Rochester (621,939)
 Highland Tel. Co., Monroe
 Sylvan Lake Tel. Co., Inc., Hopewell Junction
Seneca-Gorham Tel. Co-op., Holcomb
State Tel. Co., Coxsackie
Telephone and Data Systems, Inc., Chicago, IL
 Edwards Tel. Co., Inc., Edwards
*Taconic Tel. Corp., Chatham (24,464)
 Township Tel. Co., Chaumont
 Trumansburg-Home Tel. Co., Trumansburg
 Ontario Tel. Co., Inc., Phelps
Vernon Tel. Co., Inc., Vernon
Warwick Valley Tel. Co., Warwick

*

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NORTH CAROLINA

Atlantic Tel. Membership Corp., Shallotte
Citizens Tel. Co., Brevard
*Concord Tel. Co., Concord (93,122)
Ellerbe Tel. Co., Inc., Ellerbe
Heins Tel. Co., Inc., Sanford
Lexington Tel. Co., Lexington
Mebane Home Tel. Co., Inc., Mebane
*North State Tel. Co., High Point (110,940)
Piedmont Tel. Membership Corp., Lexington
Pineville Tel. Co., Pineville
Randolph Tel. Co., Inc., Liberty
Randolph Tel. Membership Corp., Asheboro
Saluda Mountain Tel. Co., Saluda
Skyline Tel. Membership Corp., West Jefferson
Star Tel. Membership Corp., Clinton
Surry Tel. Membership Corp., Dobson
Telephone and Data Systems, Inc., Chicago, IL
Barnardsville Tel. Co., Barnardsville
Service Tel. Co., Fair Bluff
Tri-County Tel. Membership Corp., Belhaven
Wilkes Tel. Membership Corp., Wilkesboro
Yadkin Valley Tel. Membership Corp., Yadkinville

NORTH DAKOTA

Absaraka Co-op. Tel. Co., Absaraka
BEK Tel. Mutual Aid Corp., Steele
Consolidated Tel. Co-op., Dickinson
Curlew Tel. Co., Glen Ullin
Dakota Central Rural Tel. Co-op. Assn., Carrington
Dickey Rural Tel. Mutual Aid Corp., Ellendale
Gilby Tel. Co., Gilby
Griggs County Tel. Co., Cooperstown
Inter-Community Tel. Co., Nome
Midstate Tel. Co., Stanley
York Tel. Exchange, York
Moore & Liberty Tel. Co., Enderlin
Nemont Tel. Co-op. Inc., Scobey, MT
Noonan Farmers Tel. Co., Noonan
*Northern States Power Co., Tel. Dept., Minot (35,610)
Northwest Mutual Aid Tel. Corp., Ray
Polar Commun. Mut. Aid Corp., Park River
Red River Rural Tel. Assn., Abercrombie
Reservation Tel. Co-op., Parshall
*Souris River Tel. Mutual Aid Corp., Minot (22,236)
United Tel. Mutual Aid Corp., Langdon
West River Tel. Corp., Hazen
Wolverton Tel. Co., Wolverton, MN

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OHIO

Arthur Mutual Tel. Co., Defiance
Ayersville Tel. Co., Defiance
Bascom Mutual Tel. Co., Bascom
Benton Ridge Tel. Co., Benton Ridge
Buckland Mutual Tel. Co., Buckland
Camden Tel. Co., Camden, MI
*Champaign Tel. Co., Urbana (12,732)
*Chillicothe Tel. Co., Chillicothe (35,533)
Columbus Grove Tel. Co., Columbus Grove
Community Tel. Co., Leipsic
Conneaut Tel. Co., Conneaut
Doylestown Tel. Co., Doylestown
Farmers Mutual Tel. Co., Okolona
Ft. Jennings Tel. Co., Ft. Jennings
Germantown Independent Tel. Co., Germantown
Glandorf Tel. Co., Inc., Glandorf
Harlan Tel. Co., Pleasant Plain
Kalida Tel. Co., Kalida
McClure Tel. Co., McClure
Middle Point Home Tel. Co., Middle Point
Minford Tel. Co., Minford-Stockdale
New Bavaria Tel. Co., New Bavaria
New Knoxville Tel. Co., New Knoxville
North Creek Mutual Tel. Co., North Creek
Nova Tel. Co., Nova
Oakwood Mutual Tel. Co., Oakwood
Orwell Tel. Co., Orwell
Ottoville Mutual Tel. Co., Ottoville
Pattersonville Tel. Co., Pattersonville
Ridgeville Tel. Co., Ridgeville Corners
Sherwood Mutual Tel. Assn., Inc., Sherwood
Sycamore Tel. Co., Sycamore
Telephone and Data Systems, Inc., Chicago, IL
Arcadia Tel. Co., Arcadia
Continental Tel. Co., Continental
Fayetteville Tel. Co., Fayetteville
Tel. Service Co., Wapakoneta
Vanlue Tel. Co., Vanlue
Vaughnsville Tel. Co., Inc., Vaughnsville
Wabash Mutual Tel. Co., Wabash

*

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OKLAHOMA

*Allied Tel. Co., Little Rock, AR (34,795)
 Allied Tel. Co. of Oklahoma, Inc., Roosevelt
 Oklahoma Allied Tel. Co., Poteau
 Wickes Tel. Co., Wickes, AR
Atlas Tel. Co., Big Cabin
Beggs Tel. Co., Inc., Beggs
Bixby Tel. Co., Bixby
Bromide Tel. Co., Pittstown
Canadian Valley Tel. Co., Crowder
Carnegie Tel. Co., Inc., Carnegie
Century Tel. Enterprises, Inc., Hardy, AR
 Wyandotte Tel. Co., Wyandotte
Central Oklahoma Tel. Co., Davenport
Cherokee Tel. Co., Calera
Chickasaw Tel. Co., Sulfur
Chouteau Tel. Co., Chouteau
Cimarron Tel. Co., Mannford
Craw-Kan Tel. Co-op. Assn., Inc., Girard, KS
Cross Tel. Co., Warner
Dobson Tel. Co., Inc., Cheyenne
Grand Tel. Co., Jay
Hinton Tel. Co., Hinton
Hydro Tel. Co., Moore
KanOkla Tel. Assn., Inc., Anthony, KS
Lavaca Tel. Co., Inc., Lavaca, AR
McLoud Tel. Co., McLoud
Medicine Park Tel. Co., Medicine Park
Midwestern Tel. Co., Inc., Sentinel
Oklahoma Tel. & Telegraph, Inc., Dustin
Okla.-Western Tel. Co., Clayton
Panhandle Tel. Co-op., Inc., Guymon
Pine Tel. Co., Inc., Broken Bow
*Pioneer Tel. Co-op., Inc., Kingfisher (44,666)
 Pottawatomie Tel. Co., Inc., Earlsboro
 Salina-Spavinaw Tel. Co., Inc., Salina
 Santa Rosa Tel. Co-op. Inc., Vernon, TX
 Seneca Tel. Co., Seneca, MO
 Shidler Tel. Co., Shidler
 Sooner State Tel. Co., Oklahoma City
 South Central Tel. Assn., Medicine Lodge, KS
 Southwest Oklahoma Tel. Co., Duke
 Sulphur Tel. Co., Inc., Sulphur
 Telephone & Data Systems, Chicago, IL
 Oklahoma Communication Systems, Inc., Choctaw
 Terral Tel. Co., Terral
 Totah Tel. Co., Inc., Ochelata
 Universal Tel., Inc., Milwaukee, WI
 Mid-America Tel., Inc., Stonewall
 Valliant Tel. Co., Valliant

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OREGON

Beaver Creek Tel. Co., Beaver Creek
*Calif. - Pacific National Corp., Concord, CA (13,713)
Canby Tel. Assn., Canby
Cascade Utilities, Inc., Estacada
Clear Creek Mutual Tel. Co., Oregon City
Colton Tel. Co., Colton
Eagle Tel. System, Richland
Eastern Oregon Tel. Co., Pilot Rock
Gervais Tel. Co., Gervais
Halsey Tel. Co., Halsey
Helix Tel. Co., Helix
Molalla Tel. Co., Molalla
Monitor Co-op. Tel. Co., Woodburn
Monroe Tel. Co., Monroe
Mt. Angel Tel. Co., Mt. Angel
Nehalem Tel. & Telegraph Co., Nehalem
North State Tel. Co., Dufur
Oregon Tel. Corp., Mt. Vernon
Peoples Tel. Co., Lyons
Pine Tel. Systems, Halfway
Pioneer Tel. Co-op., Philomath
St. Paul Co-op. Tel. Assn., St. Paul
Scio Mutual Tel. Assn., Scio
Stayton Co-op. Tel. Co., Stayton
Telephone & Data Systems, Inc., Chicago, IL
Asotin Tel. Co., Asotin, WA
Home Tel. Co., Condon
*Telephone Utilities, Inc., Portland (52,854)
Creswell Tel. Co., Creswell
Northwestern Tel. Systems, Inc., Lebanon
Rose Valley Tel. Co., Lebanon
Telephone Utilities of Eastern Oregon Inc., Spray
Telephone Utilities of Oregon, Inc., Lebanon
Trans-Cascade Tel. Co., Antelope

PENNSYLVANIA

Beallsville Tel. Co., Beallsville
Bentleyville Tel. Co., The, Bentleyville
Breezewood Tel. Co., Breezewood
Buffalo Valley Tel. Co., Lewisburg
Canton Tel. Co., Canton

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PENNSLYVANIA (cont.)

Centerville Tel. Co., Centerville
Citizens Tel. Co. of Kecksburg, Mammoth
Citizens Utilities Co., Stamford, CT
 Big Run Tel. Co., New Bethlehem
 Citizens Utilities Co. of Pennsylvania, New Bethlehem
*Commonwealth Tel. Co., Dallas (235,805)
 Leesport Rural Tel. Co., Leesport
 Lewisberry Tel. Co., Lewisberry
 Sullivan County Tel. Co., Estella
Conestoga Tel. & Telegraph Co., Birdsboro
Coopersburg Tel. Co., Coopersburg
*Denver & Ephrata Tel. & Telegraph Co., Ephrata (52,506)
Deposit Tel. Co., Deposit, NY
Enterprise Tel. Co., New Holland
Hancock Tel. Co., Hancock, NY
Hickory-Woodrow Tel. Co., Hickory
Ironton Tel. Co., Ironton
Lackawaxen Tel. Co., Rowland
Lakewood Rural Tel. Co., Barnesville
Laurel Highland Tel. Co., Stahlstown
Mahoney & Mahantango Tel. Co., Herndon
Marianna & Scenery Hill Tel. Co., Marianna
Murdocksville Tel. Co., Murdocksville
North Eastern Pennsylvania Tel. Co., Forest City
North Penn Tel. Co., Mansfield
North Pittsburgh Tel. Co., Gibsonia
 Freeport Tel. & Telegraph Co., Freeport
Oswayo River Tel. Co., Shinglehouse
Otto Tel. Co., Inc., Duke Center
Palmerton Tel. Co., Palmerton
Pennsylvania Tel. Co., Jersey Shore
Pymatuning Independent Tel. Co., Greenville
South Canaan Tel. Co., South Canaan
Telephone and Data Systems, Inc., Chicago, IL
 Sugar Valley Tel. Co., Loganton
Venus Tel. Corp., Venus
West Jersey Tel. Co., Belvidere, NJ
Yukon-Waltz Tel. Co., Yukon

RHODE ISLAND

No "other" independents

*

Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

SOUTH CAROLINA

Bluffton Tel. & Appliance Co., Inc., Bluffton
Chesnee Tel. Co., Inc., Chesnee
Chester Tel. Co., Chester
*Farmers Tel. Co-op., Inc., Kingstree (44,410)
Fort Mill Tel. Co., Fort Mill
Hargray Tel. Co., Inc., Hilton Head Island
Heath Springs Tel. Co., Heath Springs
Home Tel. Co., Inc., Moncks Corner
Horry Tel. Co-op. Inc., Conway
Lancaster Tel. Co., Lancaster
Lockhart Power Co., Lockhart
Norway Tel. Co., Inc., Norway
Palmetto Rural Tel. Co-op., Inc., Walterboro
Piedmont Rural Tel. Co-op., Inc., Laurens
Pond Branch Tel. Co., Gilbert
Ridge Tel. Co., Inc., Ridge Spring
Ridgeway Tel. Co., Inc., Ridgeway
*Rock Hill Tel. Co., Rock Hill (45,012)
St. Matthews Tel. Co., St. Matthews
Sandhill Tel. Co-op., Inc., Jefferson
Telephone and Data Systems, Inc., Chicago, IL
McClellanville Tel. Co., Inc., McClellanville
St. Stephen Tel. Co., St. Stephen
Williston Tel. Co., Williston
West Carolina Rural Tel. Co-op., Inc., Abbeville

SOUTH DAKOTA

Armour Independent Tel. Co., Armour
Baltic Co-op. Tel. Co., Baltic
Beresford Municipal Tel. Co., Beresford
Brookings Lake Tel. Co., Brookings
Cheyenne River Sioux Tribe Tel. Co., Eagle Butte
*City of Brookings Municipal Tel. Dept., Brookings (13,124)
Consolidated Tel. Co-op., Dickinson, ND
Dakota Co-op. Tel. Co., Inc., Irene
Deuel Tel. Co-op. Assn., Clear Lake
Dickey Rural Tel. Mutual Aid Corp., Ellendale, ND
*Golden West Tel. Co-op. Inc., Wall (9,612)
Great Plains Tel. Co., Keystone
Hanson County Tel. Co., Alexandria
James Valley Co-op. Tel. Co., Groton
Jefferson Tel. Co., Jefferson
Kadoka Tel. Co., Kadoka
Kennebec Tel. Co., Kennebec

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

SOUTH DAKOTA (cont.)

McCook Cooperative Tel. Co., Salem
Midstate Tel. Co., Kimball
Ollig Utilities Co., Ada, MN
 Sioux Valley Tel. Co., Dell Rapids
Peoples Tel. & Telegraph Co., Hot Springs
Pettigrew Tel. Line, Oelrichs
Robert County Tel. Co-op. Assn., New Effington
Rosefield Tel. Co., Marion
Sanborn Tel. Co-op., Woonsocket
Split Rock Tel. Co-op., Inc., Garretson
Stockholm-Strandburg Tel. Co., Stockholm
Sully-Buttes Tel. Co-op., Inc., Highmore
Tri-County Mutual Tel. Co., Emery
Union Tel. Co., Hartford
Valley Tel. Co-op. Assn., Inc., Herreid
Vivian Tel. Co., Vivian
Western Tel. Co., Faulkton
West River Co-op. Tel. Co., Bison
West River Tel. Corp., Hazen, ND
Wood Community Tel. Co., Wood

TENNESSEE

Adamsville Tel. Co., Adamsville
Allied Tel. Co., Little Rock, AR
 Powell Tel. Co., Powell
Ardmore Tel. Co., Ardmore, AR
Ben Lomand Rural Tel. Co-op., Inc., McMinnville
Bledsoe Telephone Co-op., Pikeville
Century Tel. Enterprises, Inc., Monroe, LA
 Claiborne Tel. Co., Inc., New Fazewell
Crockett Tel. Co., Friendship
DeKalb Tel. Co-op., Alexandria
Englewood Tel. Co., Inc., Englewood
Highlands Tel. Co-op., Inc., Sunbright
Humphreys County Tel. Co., New Johnsville
Loretto Tel. Co., Inc., Loretto
Millington Tel. Co., Millington
North Central Tel. Co-op. Inc., Lafayette
Ooltewah-Collegedale Tel. Co., Inc., Collegedale
People's Tel. Co., Inc., Erin
Skyline Tel. Memb. Corp., West Jefferson, NC
*Telephone and Data Systems, Inc., Chicago, IL (52,593)
 Concord Tel. Exchange Inc., Concord
 Tennessee Tel. Co., Halls Crossroads

*

Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

TENNESSEE (cont.)

Tellico Tel. Co., Tellico Plains
*Twin Lakes Tel. Co-op., Gainesboro (27,628)
United Tel. Co., Inc., Chapel Hill
West Kentucky Rural Tel. Co-op., Mayfield , KY
West Tennessee Tel. Co., Bradford
Yorkville Tel. Co-op., Yorkville

TEXAS

Allenco Communications, Carlton
Allied Tel. Co., Little Rock, AR
 Nocona Tel. Co., Nocona
Big Bend Tel. Co., Alpine
Blossom Tel. Co., Inc., Blossom
Brazoria Tel. Co., Brazoria-Churchill
Brazos Tel. Co-op., Inc., Olney
Byers-Petrolia Tel. Co., Byers
Cameron Tel. Co., Sulphur, LA
Campbell Tel. Co-op., Inc., Campbell
Cap Rock Tel. Co., Inc., Spur
Century Tel. Enterprises, Inc., Monroe, LA
 Avery Tel. Co., Hooks
 Caddoan Tel. Co., Plain Dealing, LA
 Hooks Tel. Co., Inc., Hooks
 Karnack Tel. Co., Karnack
 Mustang Tel. Co., Port Arkansas,
Central Texas Tel. Co-op., Inc., Goldthwaite
Coahoma Tel. Co., Inc., Coahoma
Coleman County Tel. Co-op., Inc., Santa Anna
Colmesneil Tel. Co., Colmesneil
Colorado Valley Tel. Co-op., Inc., LaGrange
Comanche County Tel. Co., Inc., Comanche
Community Tel. Co., Inc., Windthorst
Cumby Tel. Co-op. Inc., Cumby
Dell Tel. Co-op., Inc., Dell City
Eastex Tel. Co-op., Inc., Henderson
Electra Tel. Co., Electra
E.N.M.R. Tel. Co-op., Clovis, NM
Etex Tel. Co-op., Inc., Gilmer
Five Area Tel. Co-op., Inc., Muleshoe
Ft. Bend Tel. Co., Rosenberg
Ganado Tel. Co., Inc., Ganado

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TEXAS (cont.)

Garwood Tel. Co., Garwood
Gary Tel. Co., Gary
Great Southwest Co., Grandview
 Romain Tel. Co., Inc., Plains
 Texas Midland Tel. Co., Grandview
 Trinity Valley Tel. Co., Winnie
Guadalupe Valley Tel. Co-op., Inc., Smithsons Valley
Hill Country Tel. Co-op., Inc., Ingram
Industry Tel. Co., Industry
Kerrville Tel. Co., Kerrville
Knippa Tel. Co., Knippa
Lake Dallas Tel. Co., Inc., Lake Dallas
Lake Tel. Co., Livingston
Lakeside Tel. Co., Inc., Whitehouse
Laward Tel. Exch., Inc., Laward
Lipan Tel. Co., Lipan
Livingston Tel. Co., Livingston
*Lufkin-Conroe Communications Co., Lufkin (76,600)
Mid-Plains Rural Tel. Co-op., Inc., Tulia
Montague Tel. Co., Montague
Muenster Tel. Corp. of Texas, Muenster
 Valley View Tel. Co., Muenster
O'Donnell Tel. Co., Inc., O'Donnell
Panhandle Tel. Co-op., Inc., Guymon, OK
Peeples Tel. Co., Inc., Coolidge
Peoples Tel. Co-op., Inc., Quitman
Poka-Lambro Rural Tel. Co-op., Inc., Tahoka
Riviera Tel. Co., Inc., Riviera
Rocksprings & Nueces Canyon Tel. Co., Inc., Rocksprings
San Marcos Tel. Co., Inc., San Marcos
Santa Rosa Tel. Co-op., Inc., Vernon
South Plains Tel. Co-op., Inc., Lubbock
Southwest Arkansas Tel. Co-op., Inc., Texarkana, AR
*Sugar Land Tel. Co., Sugar Land (28,310)
 Sweeny-Old Ocean Tel. Co., Sweeny
Tatum Tel. Co., Tatum
Taylor Tel. Co-op., Inc., Merkel
 Lueders Tel. Co., Inc., Lueders
Tri-County Tel. Co., Inc., Garrison
Valley Tel. Co-op., Inc., Raymondville
Waterwood Tel. Co., Inc., Waterwood
West Texas Rural Tel. Co-op., Inc., Hereford
Wes-Tex. Tel. Co-op., Inc., Stanton
XIT Rural Tel. Co-op., Inc., Dalhart

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UTAH

Albion Tel. Co., Inc., Albion, ID
Beehive Tel. Co., Grouse Creek
Central Utah Tel., Inc., Fairview
*Emery County Farmers Union Tel. Assn., Inc., Orangeville (4,526)
Great Southwest Tel. Corp., Grandview, TX
 Navajo Communications Co. Inc., Window Rock, AZ
Gunnison Tel. Co., Gunnison
Kamas Woodland Tel. Co., Kamas
Manti Tel. Co., Manti
South Central Utah Tel. Assn., Inc., Escalante
*Unitah Basin Tel. Assn., Inc., Roosevelt (3,154)
Union Tel. Co., Mountainview, WY
Utah-Wyoming Tel. Co., Salt Lake City

VERMONT

Franklin Tel. Co., Franklin
Shoreham Tel. Co., Shoreham
*Telephone and Data Systems, Inc., Chicago, IL (7,754)
 Ludlow Tel. Co., Ludlow
 Northfield Tel. Co., Northfield
 Perkinsville Service Corp., Perkinsville
Topsham Tel. Co., West Topsham
*Waitsfield-Fayston Tel. Co., Waitsfield (3,300)

VIRGINIA**

Buggs Island Tel. Co-op., Bracey
Burke's Garden Tel. Co., Burke's Garden
Citizens Tel. Co-op., Floyd
*Clifton Forge-Waynesboro Tel. Co., Staunton (41,291)
Deerfield Tel. Co., Deerfield
Merchants & Farmers Tel. Co., Montpelier
Mountain Grove-Williamsville Tel. Co., Williamsville
Mutual Tel. Co. of Highland, Inc., Monterey
New Hope Tel. Co., New Hope
North River Tel. Co., Dayton
Pembroke Tel. Co-op., Pembroke
Peoples Mutual Tel. Co. Inc., Gretna
Roanoke & Botetourt Tel. Co., Daleville
Scott County Tel. Co-op., Inc., Gate City

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** Does not include Washington, D.C. (see end of list).

VIRGINIA (cont.)

*Shenandoah Tel. Co., Edinburg (19,141)
Telephone and Data Systems, Inc., Chicago, IL
Amelia Tel. Corp., Amelia
Virginia Hot Springs Tel. Co., Hot Springs

WASHINGTON

Cowiche Tel. Co., Cowiche
*Ellensburg Tel. Co., Ellensburg (21,502)
Hat Island Tel. Co., Langley
Hood Canal Tel. Co., Union
Inland Tel. Co., Uniontown
Inter-Island Tel. Co., Inc., Friday Harbor
Kalama Tel. Co., Kalama
Lewis River Tel. Co., La Center
McDaniel Tel. Co., Salkum
Mashell Tel. Co., Inc., Eatonville
Peninsula Tel. & Telegraph Co., Forks
Pioneer Tel. Co., LaCrosse
Prescott Tel. & Telegraph Co., Roslyn
St. John Tel. Co., St. John
Telephone and Data Systems, Inc., Chicago, IL
Asotin Tel. Co., Asotin
*Telephone Utilities, Inc., Portland, OR (90,887)
Telephone Utilities of Washington, Inc.
(East & West Divisions), Cheney and Gig Harbor
Tenino Tel. Co., Tenino
Toledo Tel. Co., Inc., Toledo
Western Wahkiakum County Tel. Co., Grays River
Whidbey Tel. Co., Langley
Yelm Tel. Co., Yelm

WEST VIRGINIA

*Armstrong Utilities, Inc., Butler, PA (8,500)
Armstrong Tel. Co., Hamlin
Ritchie Tel. Co., The, Harrisville
*Century Telephone Enterprises, Inc., Monroe, LA (2,318)
War Tel. Co., War
Hardy Tel. Co., Inc., Mathias
Spruce Knob Seneca Rocks Tel., Inc., Rivertown
West Side Tel. Co., Morgantown

*

Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

WISCONSIN

Almond Tel. Co., Almond
Amery Tel. Co., Amery
Amherst Tel. Co., Amherst
Baldwin Tel. Co., Baldwin
Bayland Tel. Inc., Abrams
Belmont Tel. Co., Platteville
Bloomer Tel. Co., Bloomer
Bruce Tel. Co., Bruce
Casco Tel. Co., Casco
Cencom, Inc., Rushford, MN
 Cencom of Wisconsin, Inc., Milton
Century Telephone Enterprises, Inc., Monroe, LA
 La Crosse Tel. Corp., La Crosse
Chequamegon Tel. Co-op., Inc., Cable
Chibardun Tel. Co-op., Inc., Dallas
Citizens Tel. Co-op., Inc., New Auburn
Clear Lake Tel. Co., Clear Lake
Cochrane Co-op. Tel. Co., Cochrane
Coloma Tel. Co., Coloma
Communications Systems, Inc., Hector, MN
 Indian Head Tel. Co., Inc., Weyerhauser
Coon Valley Farmers Tel. Co., Coon Valley
Crandon Tel. Co., Crandon
Dickeyville Tel. Corp., Dickeyville
Fair Water-Brandon-Alto Tel. Co., Brandon
Farmers Independent Tel. Co., Grantsburg
Farmers Tel. Co., Lancaster
Footville Tel. Co., Footville
Hager City Tel. Co., Hager City
Hillsboro Tel. Co., Hillsboro
Lakefield Tel. Co., Newton
Lakeshore Tel. Co., Cecil
LaValle Tel. Co-op., LaValle
Lemonweir Valley Tel. Co., Camp Douglas
Luck Tel. Co., Luck
Madeline Island Tel. Co., LaPointe
Manawa Tel. Co., Inc., Manawa
Maple Tel. Co-op., Inc., Maple
Marquette-Adams Tel. Co-op., Inc., Oxford
Mid-Plains Tel., Inc., Middleton
Milltown Mutual Tel. Co., Milltown
Mondovi Tel. Co., Mondovi
Mosinee Tel. Co., The, Mosinee
Mt. Horeb Tel. Co., Mt. Horeb
Nelson Tel. Co-op., Durand
Niagara Tel. Co., Niagara

WISCONSIN (cont.)

Northeast Tel. Co., Pulaski
*North-West Tel. Co., Tomah (73,536)
Novy's Tel. Co., Kendall
Peoples Tel. Co., Randolph
Platteville Tel. Co., Platteville
Price County Tel. Co., Phillips
Rhineland Tel. Co., Rhineland
 Headwaters Tel. Co., Rhineland
Rib Lake Tel. Co., Rib Lake
Richland Grant Tel. Co-op., Blue River
Rock River Tel. Co., Johnson Creek
St. Croix Tel. Co., New Richmond
Sharon Tel. Co., Sharon
 Bergen Tel. Co., Sharon
Shell Lake Tel. Co., Shell Lake
Siren Tel. Co., Inc., Siren
Somerset Tel. Co., Inc., Somerset
Southeast Tel. Co., Waterford
Southwest Wisconsin Communications, Inc., Platteville
 Cuba City Tel. Exchange Co., Platteville
Spring Valley Tel. Co., Inc., Spring Valley
State Long Distance Tel. Co., Elkhorn
Sullivan Tel. Co., Sullivan
*Telephone & Data Systems, Chicago, IL (64,913)
 Badger State Tel. Co., Inc., Neillsville
 Black Earth Tel. Co., Black Earth
 Bonduel Tel. Co., Bonduel
 Burlington Brighton & Wheatland Tel. Co., Burlington
 Central State Tel. Co., Vesper
 Dodge County Tel. Co., Reeseville
 Fennimore Tel. Co., Fennimore
 Greenwood Tel. Co., Greenwood
 Midway Tel. Co., Medford
 Mosel & Centerville Tel. Co., Cleveland
 Mt. Vernon Tel. Co., Verona
 Peoples Tel. Co., Mt. Hope
 Scandinavia Tel. Co., Iola
 Stockbridge & Sherwood Tel. Co., Sherwood
 Valders Tel. Co., Valders
 Waunakee Tel. Co., Waunakee
Tenney Tel. Co., Alma
Thorp Tel. Co., Thorp
Tri-County Tel. Co-op., Strum
Turtle Lake Tel. Co., Turtle Lake
Union Tel. Co., Plainfield
United Tel. Co., Monroe

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

WISCONSIN (cont.)

Universal Tel., Inc., Milwaukee, WI
Badger Tel. Co., Inc., Webster
Chippewa County Tel., Inc., Jim Falls
Cream Valley Tel. Co., Hawkins
Forestville Tel. Co., Forestville
Frederic Tel. Co., Frederic
Hammond Tel. Co., Hammond
Lakeland Tel. Co., Minong
Larsen-Readfield Tel. Co., Larsen
Monroe County Tel. Co., Sparta
Ogema Tel. Co., Hawkins
Osceola Tel. Co., Osceola
Poplar Tel. Co., Inc., Minong
Solon Springs Tel. Co., Minong
Universal Tel. Co. of Northern Wisconsin Inc., Mantowish Waters
Union Tel. Co., Plainfield
United Tel. Co., Monroe
Urban Tel. Corp., Clintonville
Vernon Tel. Co-op., Westby
Viroqua Tel. Co., Viroqua
Wayside Tel. Co., Greenleaf
West Wisconsin Tel. Co-op., Downsville
Weyauwega Tel. Co., Weyauwega
Wittenberg Tel. Co., Wittenberg
Wood County Tel. Co., Wisconsin Rapids

WYOMING

Chugwater Tel. Co., Chugwater
Cokeville Tel. Co., Inc., Cokeville
Dubois Tel. Exchange, Inc., Dubois
Eden Valley Tel. Co., Farson-Eden
Medicine Bow Tel. Co., Medicine Bow
Range Tel. Co-op., Inc., Forsyth, MT
Silver Star Tel. Co., Inc., Freedom
Tri-County Tel. Assn., Inc., Basin
*Union Tel. Co., Mountainview (3,700)
Valley Tel. Co., Baggs
*Wyoming Tel. Co., Inc., Pinedale (3,818)

WASHINGTON, D.C.

Telecommunications Concepts, Inc., Fairfax, VA

Potomac Telecommunications, Ltd., Washington, D.C. (private telephone company serving only the Washington metropolitan area)

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

APPENDIX B: COMPUTER GRAPHICS USED TO PLOT MAPS

Computer graphics (the producing of graphical images with the aid of a computer) has been used since the early 1960s, but, for over a decade, nearly all graphics equipment was large and very expensive. During the 1970s, less expensive minicomputers and CRT displays became available, and storage capabilities began to expand with the addition of floppy disks and tape drives. Soon after, users discovered the advantages of digitizing (assigning coordinate values to a point or series of points which generate lines or "pictures" which are stored in some data storage device).

One of the most important advantages of using interactive graphing is its capability to update data with very minimal effort. Because of this, a number of organizations that rely on geographic and demographic statistics are using interactive graphic systems to update their maps of population densities, river drainages, transportation networks, utility lines, etc. (Phillips, 1974; Emery, 1981; Jenkins, 1981; Hootnick, 1981).

This updating capability convinced the authors that the telephone maps in this report should be plotted via an interactive computer system. The Tektronix graphics system that was used consisted of these units:

- 4054, a 64K 16-bit high resolution desktop graphic computer;
- 4907, a file manager with three floppy disk drives;
- 4956, a 36" X 48" graphic tablet with a push-button cursor;
- 4631, a high-quality image hard copy unit; and
- 4662, an intelligent interactive digital plotter.

The computer software was purchased from Arthur Ungar of ICONICA, Oakland, CA. His graphing package, "Simple Handling of Areal Data Expressions" (known as SHADE II), was the only one that not only provided facilities for map digitizing, data input, editing, and display, but also did not require the use of a mainframe computer. As an added bonus, it also had the capability to compute the polygon areas owned by each telephone company and shade specified boundaries within each of these.

Digitizing of the maps was accomplished by the use of the Tektronix graphics tablet. The map boundaries were traced by recording enough consecutive points to accurately outline every polygon representing any telephone company area. The coordinates of each point were recorded in the computer memory by use of a four-button cursor. The four cursor codes instructed the computer to: (1) input the point as one of a continuing series, representing a line, (2) close up the boundary of the current polygon, (3) duplicate points from any previously digitized polygon (when it had some part of its boundary contiguous with the polygon now being digitized), or (4) duplicate the points (and reverse the direction, thus subtracting the area) of an interior polygon totally enclosed within a larger polygon.

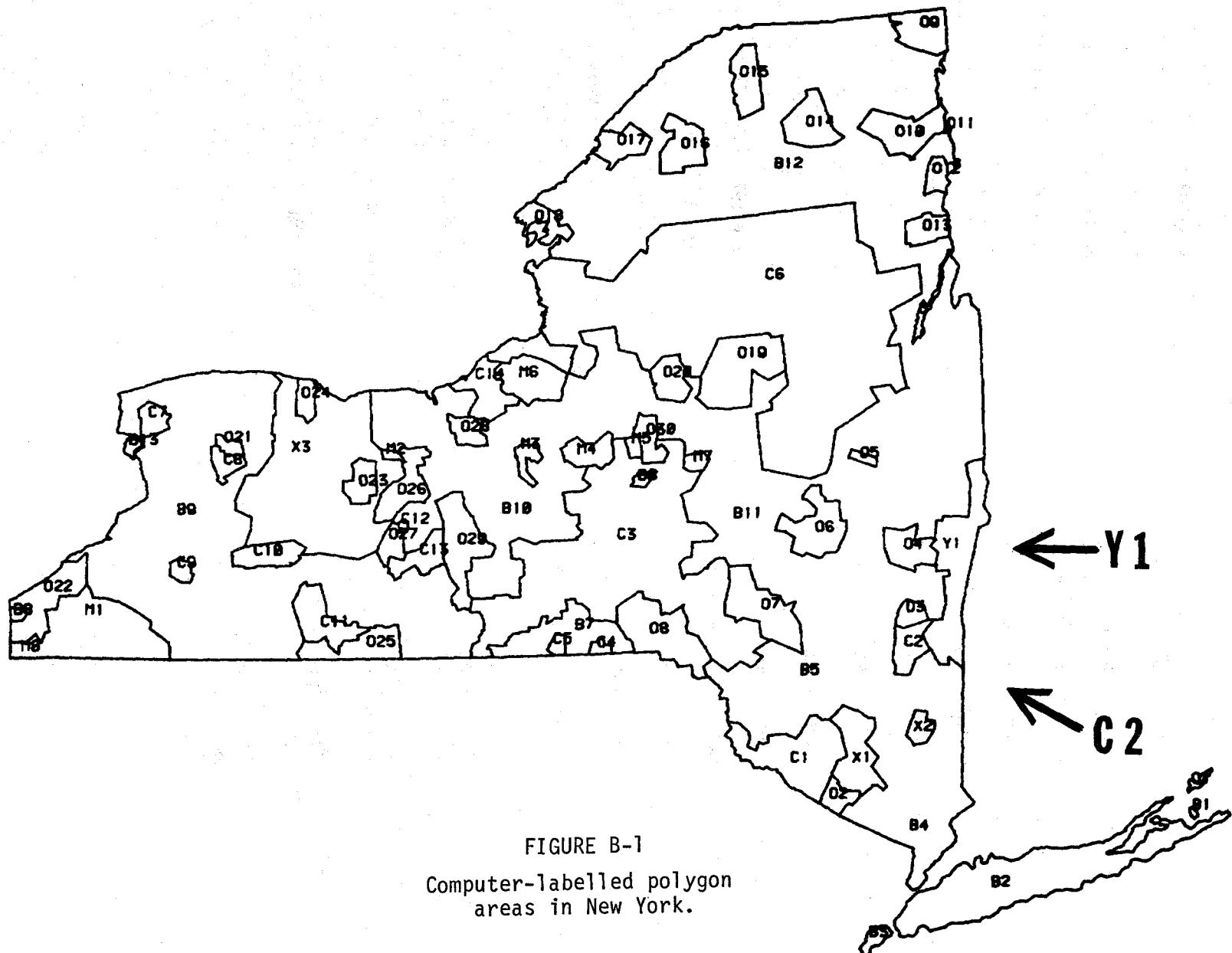
In order to insure proper definition and resolution of points (in case any map needed to be duplicated or corrected), each map was given a scale by digitizing two points and entering the coordinates of these two points into the computer. If a key to scale wasn't included on the original telephone maps, an arbitrary scale was chosen, depending upon the required resolution for that map. The software allowed nine distinct types of shading within the polygons by instructing the computer to use lines with varying angles and spacing.

The SHADE II software proved to be a fortunate choice for our map digitizing, because it had a number of very useful features that seemed "made to order" for our purposes. The most useful feature was its extensive editing capability. This not only permitted changes in telephone company areas (depicted as polygons on the maps), but also provided for the reclassification, the deletion, or the addition of any polygon. For example, in Figure B-1, the second polygon of Company C in New York was labelled C2. If, sometime in the future, this area were to be sold to Company Y (see polygon labelled Y1 in the figure), the editing capabilities of SHADE II could be used to quickly reclassify and reshade the C2 polygon. This maneuver would also subtract 152 sq. mi. (the area of C2) from the total Company C area and add it to the total area for Company Y.

Another very useful feature was the "map window" that permitted the selective viewing and digitizing of any portion of a total map. When very large maps were to be digitized, they were divided into sections so as to permit more working detail. Texas, for example, was completed as four separate digitized sections. Because the coordinates of each were carefully recorded, individual sections could later be combined into a single map. In the case of Texas, the final coordinated map was printed in three sections which appear as Figures 43a, 43b, and 43c.

Only a few problems were encountered while using the SHADE II software. These occurred because the preparation of the telephone maps required more complicated procedures than those needed for most thematic maps. Three changes were made (with the assistance and approval of Mr. Ungar) to modify the software for the telephone map digitizing. The first change was to increase the maximum number of points per polygon from 300 to 1700. To do this, it was necessary to gain

NEW YORK



more memory by reducing the maximum number of polygons per map window from 60 to 35 and cancelling two SHADE II functions (overlay and grid) that were not needed. However, the digitizing of some of the larger polygons required even more points; so a second modification was made which permitted lines to be flagged "invisible" -- a technique by which large polygons could be split into smaller polygons with invisible lines between them. (See the B Company polygons on Figure B-1.) The third change was done for convenience. It converted the ratios of the SHADE II software to calculations of the square miles within each polygon and summarized the total area for all polygons comprising a single telephone company.

This updated version of the telephone areas serviced by Bell and the independent telephone companies should be more useful than the 1973 report since it not only includes all current telephone company boundary changes, but it also was drafted in a manner (interactive computer graphics) that permits almost instantaneous corrections to, or revisions of, any of the telephone company areas.

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